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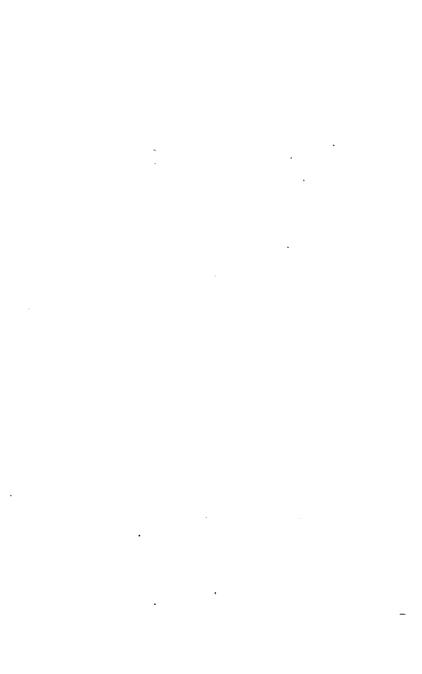
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MES FOR THE PEOPLE

Suburb and Country;

VILLA. THE MANSION, AND THE COTTAGE.

ADAPTED TO AMERICAN CLIMATE AND WANTE.

WITH MEANPLES SHOWING BOW TO

TER AND REMODEL OLD BUILDINGS.

In a series of One Mundred Original Benigna.

GERVASE WHEELER, Architect,

NEW YORK: CHARLES SCRIBNER, 145 NASSAU STREET.

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PREFACE.

TO THE READER:

A FIRE that destroyed various buildings in Spruce street, New York, in the Spring of last year, consumed the whole of a volume then ready for the press, which the reception of my former little treatise had encouraged me to prepare, and which bore the same title as the present work.

By a complication of disasters, every portion of the result of two years' labor was destroyed—even the manuscript and delineations; so that the book now offered for perusal had to be commenced anew, with but memory to trust to, and love of the task imposed, to carry me through.

But nothing comes wholly evil in this world, and something of good remained in the conviction that the delay would add riper experience and more mature thought to the new attempt: indeed, so it has proved, for the difficulty has been rather to avoid multiplicity of examples, than in any lack of matter to illustrate so comprehensive a task as one which seeks to provide the People with hints to guide them in erecting suitable dwellings.

In the attempt that the following pages indicate, I have endeavored steadily to keep in view the fact that *Homes* are needed, and that the urgency of the want must not be met by the offering of whimsical and unreal fancies, suited neither to habitancy nor durability, and yet, although honestly of opinion that any one design selected can be made exactly what it claims to be—a good, common-sense house for a man to live in, replete with conveniences and domestic comforts—all have been cast in forms of simple beauty, and the laws of architectural propriety have been respected.

Throughout the work, constant reference is made to certain well-known principles of design upon which material beauty depends. These are interspersed with the illustrations, in preference to occupying a position where they may be read as a collected whole, knowing that a general reader cares little for essays, and would be apt to turn only to the "pictures," and so, perhaps, leave unread what is claimed to be at least of equal value.

The contents will be found to consist of a short description of the peculiarities of those architectural styles of past ages, which are of practical use in domestic buildings now, and a series of carefully digested plans of residences adapted to every want of home-seekers—from the country mansion to the simplest cottage. It is not supposed that every reader will be able to find exactly the very home he needs, but he will be able to learn what, at least, are his requirements, and will gather a very tolerable idea of how to meet them.

GERVASE WHEELER,

Architect.

New York, March 13, 1855.

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HOMES FOR THE PEOPLE.

PART THE FIRST.

THE VILLA.

CHAPTER I.

DIVISION OF HOMES SOUGHT BY THE PEOPLE INTO THREE CLASSES—HISTORY OF ARCHITECTURAL STYLES APPLICABLE TO MODERN USE.

Three classes of persons seek homes in the country: those who, doing business in the city, make their family home in the suburb, or adjacent rural neighborhood; those who, having retired from town pursuits entirely, or to so great an extent as to make such an arrangement convenient, consider their country retreat the family homestead; and those who select the country from motives of economy. A fourth class may be found in those whose business consists in country pursuits entirely; but the requirements this class would demand in a home, assimilate so closely, in many respects, to those that may be enumerated in describing the wants of the

third class, that, for the sake of convenience, the former distribution seems preferable. Thus, we have a classification of houses to suit the wants of each home-seeker thus designated, in the Villa, the Mansion, and the Cottage. Though the peculiarities of each of these are really so distinct as justly to be enumerated under an individual head, they frequently trench so nearly one upon the other, as to render difficult at times, the exact definition of to what class a house in question may belong. The small villa nearly resembles the cottage; the large villa, the mansion; and the cottage, the farmhouse, or the country-seat, as the pursuits of the occupants may cause it to assume either character. The villa, mansion, and cottage, however, have, in reality, very strongly marked points of difference, and the attempt to set the laws that regulate their just design at defiance, results in the many architectural incongruities constantly seen.

The object through the following pages will be to supply a popular want, as it appears in each department that has been named, and in classifying examples of homes under each head, to endeavor to explain their excellences and peculiarities.

THE VILLA.—Custom has given a somewhat different meaning to this term to what its precise application would allow. The word originated with the Italians, who applied it to those pleasure-houses built in the vicinity of their larger towns, by men of wealth and

leisure. The Cardinals exhibited their riches and taste in the construction of many such buildings in the environs of Rome, and to the present day, their erections serve as models of a style of architecture, that has met with great favor in every part of modern Europe. They were not houses of constant residence, and, therefore, although the term remains now, its meaning has become somewhat modified. The modern Villa is understood to mean a home, partaking in its form and arrangements both of the town-house and the country residence. It has the compactness of arrangement of the former, and the liberal accommodation of the latter, and herein the small villa, whether in suburb or open country, differs from the cottage inasmuch as its outlines are usually bounded by a parallelogram, nearly regular, and it exhibits a somewhat more severely studied style of architecture, whilst the cottage adapts itself exactly as it may be required, to the peculiarities of the site, and is usually both irregular in outline upon the ground, and in its style conforms less to set rules of art than to a general picturesqueness and fitness with the scenery around, and the materials of which it is composed.

In the strict architectural sense of the term, the Villa should resemble the early buildings which gave it birth, and would, therefore, be of Italian design; but modern modes of life having changed the home requirements that now demand supply, there is no impropriety in shaping the building into any style, that the circumstances of each particular case seem in good taste to

permit. A Gothic Villa appears certainly a misnomer, and yet the pointed style being only an exponent of a peculiar principle, there need be no violation of architectural propriety in giving to the building, which if in Italian finish would without cavil be called a Villa, the general character of the Gothic domestic buildings, of which there are so many specimens extant in all parts of Europe. The Gothic, or any other style, would only be inappropriate where its proper development conflicted with the honest and natural expression of the building under consideration, and this argument I would have ever present to the mind of the reader, that an architectural style is only fitting when it permits a perfect embodiment of the intention of the building, and should so appeal to the senses as to impress with the conviction that any other expression of form and design would have been inadequate.

It is not necessary now to demonstrate that any of the so called styles of architecture cannot be fully carried out in domestic buildings of these times—scarcely do I think even in those of a public character—all we can do is, at best, to modify, as we do when we select the Grecian as a style for a modern church, and have (to make the building church-like) to add a contrivance to supply in the form of a steeple a something that no Grecian builder ever dreamed of, or to try and invent. It is somewhat mortifying to have to confess, that as yet we, architects, have had poor success in the latter attempt. So boundless is the profusion of form that

older masters have in their works supplied, and so allsufficient for all architectural purposes have been the examples of varying styles in the past, that all we can do is to combine, using bits here and there, as our education affords more or less acquaintance with the models from which we steal our material. At least, this is all that generally is done, though the dawn of a brighter day for art is at hand, and as I have said, in a former work, it is my conviction, that from the effort to supply an American domestic architecture will grow an original and perfectly adapted style. We have thought and designed for centuries, and yet to classic architecture no new order has been added, nor to the intricacies of Gothic loveliness have we yet been able to join a single new beauty-nor shall we whilst we are dovetailers—we must originate. It may be, however, that in the immense variety of well-defined styles that now exist, we have material enough for the embodiment of all the architectural ideas that time will bring forth to the end of the world, and—like language—there is no necessity to invent a fresh one—but simply to imbue the mind so thoroughly with the particular one that is then sought to be elucidated, as that all the expressions shall be consistent, and we think and speak in the same tongue. So an architect must be, not a translator, but a speaker in the natural tongue of the art he seeks to express.

The great evil of the present American architecture is that it is indefinable. It is not that it is merely

whimsical, and frequently meretriciously gaudy, but that it seems to have no laws, and expresses no meaning. Architects solely are to blame in this; no country has within the last six years expended so much upon its buildings, public and private, and yet (I speak advisedly) in no land has so little advance been made in artistic truth. A recent visit to Europe has convinced me that a great change is working there; precedentthat terrible bugbear to the student of beauty-is more seldom quoted in support of this or that; the republican feeling is awakening in the cause of art, and first elements, rather than correct details, are studied; so that the painstaking reproducer of an ancient style, however exact he may be in his copying, finds little public sympathy, if there be no other beauty in his work, and if the spirit of fitness be absent from his design. This arises, in a great measure, from the general interest awakened by the number and excellence of cheap art criticisms, and from the growing interest in architecture throughout nearly all the countries of the old worldsoon, let us hope, to be renewed in this.

Let any reader walk down Broadway, or the streets of any large American city, and observe how justly the charge is deserved; if a building have any style at all, it will certainly prove to be, if pleasing, an exact facsimile of some design from the architect's copy-books—namely, the published examples of well-known European structures; or it will be "original"—that is, made up of little bits of detail of all styles, arranged without

congruity or order—in fact, but the clumsy piecing together of the coinage of other men's brains, instead of the working out of an idea.

Yet there remains one cause for congratulation. In no country has the same advance been made in the arrangement of domestic building as in this. No houses can be found in the cities or suburbs of modern Europe so conveniently planned for comfort and economy of living as may be seen here—none, on a modicum of ground, affording rooms so spacious and conveniences so numerous; but for this we are indebted more to the ingenuity of Yankee character than to art, for when we seek for beauty or elegance, or simply for good taste, the search is only too often in vain. Surely we architects are to blame; for if more frequent examples were shown of the true developement, throughout all its details, of a pure taste, the public sentiment would find little to admire in the gaudy, showy, and extravagantly overladen ornament of our many dwellings.

These remarks apply with equal force to the villa and country-house as to the buildings on a street; and as there are fewer limits to the display of individual taste in the former, it becomes more necessary that the principle which governs beauty in all architectural compositions should be recognized. In what that principle consists the reader will, I trust, discover before our mutual acquaintance through these pages shall be brought to an end.

However simple the style and finish of a villa, its

design should show a rigid adherence to the character that has been chosen, and hence to rightly determine the fitness of any of the usually recognized types of architecture, some description of the attributes of their several varieties seems useful.

The examples of classic art cannot fitly be developed in the modern villa, or, at best, only small portions of their details. A Grecian column or pediment, or a Roman arcade, may, it is true, find at times fit place, but as all these materials are employed in the Italian and, comparatively, more modern school of art, it is only necessary to allude to their existence, and pass on to those later styles which grew out of them.

After the decline of Grecian art a great variety of styles sprung up which, as they became developed in different countries, gradually assumed a specific form, and after a while, although at times frequently blending, two principles became embodied which were entirely antagonistic, so much so as at length to become resolved into two widely differing types of building. These may for the present be roughly sketched under the general heads of Gothic and Italian.

The origin of Gothic architecture is somewhat recure: it was rather a gradual wandering from an irregular and indefinite style which, after the rules regulating severely classic art became obsolete, seemed to be spreading over the civilized world, that at last resolved itself into a fixed principle; and it is a significant fact, that as soon as the existence of that principle became

apparent, the style at once settled itself into as clearly defined a style as had before been found in the several orders of pure Grecian architecture. This was the "Pointed;" and with the introduction of the pointed arch into architecture, came very speedily a recognition of its principle in all Gothic designs, and those styles which did not incorporate it gradually differed more and more from those which did, so as in time to present features so different as justly to entitle each to a different name.

The pointed arch itself was undoubtedly of eastern origin; and though its form is traced here and there in all the earlier stages of architecture of which any examples now remain, it was not until many centuries after the decadence of classic art that a style of architecture had assumed a definite form, which we now call Gothic or Pointed.

During all the confusion that intervened consequent upon the endeavor to escape the trammels of classic art, two principles were steadily at work—one embodying forms that had a tendency to lift its lines upwards and lead the eye above; the other showed an equally strong predilection for forms that spread its lines horizontally and led the eye along: thus came the vertical and the perpendicular architecture, fitly represented now by the Gothic and the Italian.

I cannot expect the general reader to follow with interest all the modifications that, step by step, led to these results, and that justify me for the sake of terse-

ness to classify all architecture below these two heads; but as any closer study, each for himself may care to give to the history of constructive art, will only bring the mind to the recognition of this first fact, it may be sufficient to say that such may fairly be assumed as a convenient nomenclature, and that henceforth in writing of Italian or Gothic I mean to convey an idea of a style of architecture embodying one or other of these principles of design.

The term Gothic is in itself unfortunate, and it were well could some other be commonly used; it does not at all mean a style of architecture invented or in use by the Goths, but appears to have been first used as a term of opprobrium by Sir Henry Wotton, and subsequently by Evelyn, and was by each of those writers applied to Pointed architecture, to designate what they-being, as was the fashion of the times, deeply imbued with love of classic art—considered a very barbarous and uncouth style. It is true the Goths did in a manner originate a style, and I may briefly state that, could the term derived from their name be confined to the species of architecture alluded to, much confusion would be saved. The history of art shows that, in the early part of the fifth century, Theodoric, a king of the Ostrogoths, sought to embelish the Capital of the western world by architectural splendors, such as his early education in Constantinople had made him familiar with. He accordingly called in the aid of architects, but as these were only familiar with Grecian models, it was natural that, in the

efforts to carry out the ideas of a sovereign educated in the East, a mongrel species of architecture grew out of their joint endeavors. After the death of the king, there gradually spread over the country a somewhat barbarous and clumsy imitation of the buildings of the capital (which in themselves were departures from classic purity), which in short time assumed a definite form. Lombardic, early Italian, Saxon, Norman, all sprung from this, or were rather the workings of the same spirit, differently influencing various parts of the world, and also germinated in time the Pointed, as this style is more correctly—the Gothic, as it is commonly—called.

Of examples of domestic architecture in the very early stages of the Pointed style we have but few remains, and those that do exist certainly do not show the same improvement and excellence which the houses of Italy and Greece undoubted possessed. It seems as if all the early enthusiasm in the development of this beautiful style had entirely a religious direction; for, whilst the domestic edifices were rude, the churches and monastic buildings exhibited a perfection and elegance of finish which, to lovers of early Christian art, appear almost to have been inspired.

The various epochs of pointed architecture may thus be designated:

The Lancet, or early English, as it is as commonly called, on account of its wide prevalence and purity in England;

The Decorated; and

The Perpendicular.

These embraced a portion of time which may roughly be assigned as follows:

The Norman, or whatever we may choose to call the round-arched style that forms the connecting link between the Classic and the Pointed, was the architecture of the twelfth century;

The Lancet, that of the thirteenth century; Decorated, that of the fourteenth century; and Perpendicular, that of the fifteenth century.

The Lancet may be known by the acute lancet form of the arch of its windows, and by their extreme simplicity, the arch itself being always plainly open without the intervention of any tracery or other members. Other distinguishing characteristics there are—but this will suffice in the short sketch I propose to give of the peculiarities of the several styles I have named. The Decorated style has its arch not so sharply acute, and its windows are strikingly characteristic. The arch above the perpendicular divisions of the window—mullions as these are technically called—is subdivided by a net work of tracery, in either regular geometrical forms, or in wavy and flamelike lines.

The Perpendicular has an easily distinguishing characteristic in the fact that the lines of its divisions have invariably a straight direction; the tracery or filling in of the head of each arched window being formed of upright bars connected with smaller arches, and occasion

ally with curved lines, but always presenting the features of the design in perpendicular forms.

Purely Pointed architecture is scarcely ever suited for purposes of modern domestic use now, and no style has been so much vulgarized and abused. Its leading characteristics are so easily learned that the merest tyro fancies himself capable of a "Gothic Villa," though really no style is so difficult satisfactorily to handle, and is so likely to cause inconsistency in elaborating its de-None but an architect fully imbued with the principles of Gothic art can adequately adapt them to the changed circumstances of the present day; he that merely seeks to carefully reproduce a fac-simile here and there of a window, or a finial, or other bit of mediæval art, will never exhibit in his completed performance an atom of the spirit that gave the details he has stolen, fitness and beauty. Nor are the materials in common use in our days, used as we use them, capable of fully displaying its genius; the walls are too thin for the deep splays and dark recesses that give such beauty and richness to the Gothic window and doorway; pressed brick, plate glass and tin roofs are too bright for a style that derived much of its effect from its quaint quietness and solemn gloom. And yet the principles of Pointed architecture can be as fitly carried out now as they were in the palmiest days of Christian art, but they must be honestly embodied, for this is an age of shams, and no deceits are so easily made as builders can put together in imitation of Gothic work.

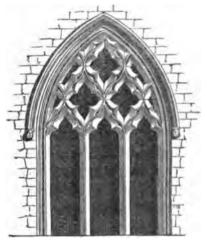
After awhile, Gothic architecture lost much of its purity, the governing principle that gave it fitness and beauty, became less strongly held in force—the lines wavered from their upward direction and the vertical commingled with the soaring, so that the same blending of opposite elements that gave the Pointed style birth is found in its decay. Gradually the Italian mingled with the Gothic and from its union sprang the Tudor, Elizabethian and other varieties of a mixed style, which has continued, each change making its character less distinctive, until now. Gothic, therefore, as commonly used in this day, is either of this latter character, or it has modern adaptation of earlier forms and incongruous bits of inappropriate detail.

Europe abounds, however, with many examples of domestic buildings very happily conceived in the Tudor and other late styles of Gothic art, and there are many reasons that would lead to the selection of their characteristics in using the Gothic as the style in which to carry out a villa, or country residence, now. In future pages buildings embodying the principles of both early and later Gothic will be offered, and with the following representation of a window in each of the three styles I have described, which may enable the eye at once to comprehend their differences and characteristics I will bring to a conclusion these brief remarks upon the history and meaning of Pointed architecture.



PL L-THE LANCET.

PL. III .- THE PERPENDICULAR.



PL. II .- THE DECORATED.

The other style, which, for the sake of brevity, we agreed to call Italian, having distinguishing marks as characteristic than the Gothic, will need a some-hat closer investigation. The early Italian school

appropriated and adapted the ancient Roman orders, and many of their details, and with these commingled also many of the features of the other style that had commenced to make itself known, and which has been described as the Gothic; so that early examples of Italian buildings show frequently a strange admixture of Pointed work with that of the classic era. Gradually the Pointed element became lost, and at length, in various parts of Italy, a style prevailed, which in its purity is, perhaps, the best adapted of any to modern use, because susceptible of treatment as varied as climate, building material, and modes of life can demand.

Italian architecture may be divided into three species, according to the schools of art which then held sway: The Florentine; the Roman; and the Venetian.

The Florentine.—A style in architecture is created by the climate of the country and the habits of the people, controlled in a great measure by the materials which the country supplies. The quarries of Tuscany furnish very large masses of stone, of an excellent quality, and which lie so near the surface of the ground as to permit them readily to be removed to the spot where they are wanted, no other difficulty than that of carriage presenting. Hence the architecture of the country assumed that solid, heavy, and monotonous character which are the commanding features of the Florentine school. In later times, as insurrections and internal warfare made home builders careful to construct their

dwellings equally for defence as ornament, the practice was still continued, and to this day, the finest palaces of the Florentines serve equally for fortresses as mansions.

This peculiar massiveness seems never to have left this style of Italian architecture, and as more of richness and ornamentation became apparent on the buildings, it is curious that the heaviness of form grew no lighter, but that the enrichment was bestowed upon the most cumbrous parts. So we find in examples of this school, the cornices of the palaces assumed a stupendous grandeur, and this feature, together with the almost universal absence of columns in the façades, gives an easily remembered characteristic of the Florentine, to distinguish it from the other varieties of Italian design. This style extended over a period of about two centuries, commencing early in the fifteenth.

The Roman School.—During the rise and progress of the Roman school of architecture, the people, although not entirely free from insurrection and internal warfare, seem to have been of a more pacific disposition, and consequently their palatial and other domestic structures show less of the fortress character than do those of Florence. Having also a more intimate familiarity with the works of classic art, their buildings show a superior elegance and lightness, and at the same time, a far more frequent use of columns and other decorations in their façades. In fact, so lavishly were the fronts of their buildings decorated as often to be more masks of indifferent interiors. A peculiarity of

their designs is in the importance generally given to the entrance, which was usually made the principal feature in the composition, a mode entirely at variance with the style adopted by the builders of Florence, who invariably designed the doorway (fortress-like) with great simplicity, making it no larger nor more important than usefulness demanded. In this style were erected the villas, which now serve as models in modern times, and with which the suburbs of Rome were once thickly studded. This style prevailed from the latter part of the fifteenth to the close of the sixteenth centuries—a period of about one hundred and thirty years.

The Venetian School is known by its lightness and elegance, by the abundant use of columns, pilasters, and arcades, and by a method of arranging the composition of the design, which gave great grandeur and importance to the principal feature of the building. This was gained by a practice nearly universal, of considering the first or lower story as the base as it were of the building, and from this sprung, with every enrichment that a true architectural taste could permit, the main mass. This was usually done by rusticating the masonry of the lower portion of the building, and arranging its composition in heavy masses; above this, heavy columns, frequently extending the height of two stories, supported the cornice, and between these were grouped the windows and other features of the design. Urns, statuary, and elaborate carvings, ornamented the façades, and some of the finest examples of the Villa and Palace extant were built in this style. Palladio is the name of the well-known architect whose works in this style are justly considered text-books of design. The duration of this school of art was about from the middle of the fifteenth to the commencement of the seventeenth century.

A style prevailed earlier, however, to all these, and examples of buildings designed therein were erected, at frequent intervals, from quite an early period of Italian art to the latest I have named. This, perhaps, cannot be called a style, but was rather the frequent use of a peculiar feature, the presence of which is found in buildings of very varying dates. I allude to the Campanili, or bell-towers, which seem now to be considered an essential feature of a modern Italian villa. These owed their introduction into Europe to the Lombards, although in Constantinople, at a very early period, such towers were in use. With these towers a species of architecture prevailed, which is called now Romanesque, and which was the style employed by the Lombards, who, having no architecture of their own. sought, as well as they could, to build after the Roman manner. This style resembles, in its general features, the Norman, and other early styles, which, as before remarked, were but the results, in different countries, of a struggle extending, at the same time, over all Europe, to escape from the trammels of an old school of art (the classic) and found one anew.

Thus I have briefly sketched the varied styles of early art in building, in order that an allusion to any one of them by name may better be understood. The history of architecture is a pleasant and profitable study, and a lady's eye would find much to amuse her in the carefully drawn delineations of ancient models, and much to interest the mind in the elucidation of principles of truth, which were better understood in the "dark ages," as they are called, than in these our enlightened days. It is not a dry study I would indeed have you know, nor would the time expended upon the reading of a few of the well-written books that modern publishers now so cheaply offer, prove profitless. Surely, the pretty legend of the origin of the Corinthian capital would interest the lady reader, and, if she be fond of analysis or logical disquisition, the attempt to unravel the mystery of the origin of the pointed arch, about which so many doctors disagree, would afford every opportunity for the exercise of mental powers. Perhaps my readers may consider all these remarks as but a "puff preliminary;" but, indeed, the feeling of sadness that so little is generally known of the principles of the science I profess, is but too real. Would that, at least, a slight knowledge of the art were taught at schools, and the lesson not forgotten when holyday time came; then there would be a "better time" for architects and better buildings in the land.

We are too willing, amid the hurry and the business of to-day, to forget utterly the past; in our struggle onward, we have little time for a backward glance; and yet, everything that may help to lead us back to the early world's history—that may serve to force upon our attention the age of inspiration—the rise and fall of nations, the planting and the spread of Christianity, must tend not merely to interest, but to expand the mind. So may we learn duly to estimate this our own position, and by knowing what has been done, gain a power for further advances. At least, let me claim, that by some knowledge of architectural history, and of the peculiar characteristics of various epochs of art, the pleasure of foreign travel (now so widely sought) must be greatly enhanced; for every stone would then be the token of an idea, and every old building an open book, and "sermons in stones" be read and understood.

In tracing the history of architecture we, in reality, follow the process by which, step upon step, the various parts of the world advanced towards civilization, and how, sometimes, as the governing principle that before had led on progress, became less heeded, they relapsed into barbarism. We see how the first wants of mankind, which led them to congregate together to found homes, brought about an interchange of ideas and an increasing means of transmitting information, so that the labors of one generation served as a basis for the works of the next, and presently, as buildings increased in number and importance, principles were ultimately laid down for their construction; ingenuity and contrivance were exerted, and the other arts of painting, sculpture, and

other embellishment, so far as they were known, were called in to aid the builders.

As the world progressed in civilization, the waves of art advanced far and wide; now steadily onward, now swayed back by some opposing force or inherent weakness, and, as time stole on, successive styles arose, flourished, and decayed, to be reproduced and modified in more modern times at will. And yet, the most interesting fact that close investigation could discover, is in the recognition in every successful style of an all-pervading principle, which set laws and limits that could neither be broken nor left. Grecian art had its laws-when the voice that told them became weak, then fell its architecture. Christian art had its spirit, too; and when that spirit lost its teachings, then fell away from the style all its almost superhuman beauty; and hence the reason art in building is so lifeless now-it has no principleobeys no laws. It seems hopeless to look for the initiative in an effort to found a national style in American public buildings; building committees, to whom usually is intrusted the selection of the design, have the worst of influences upon art. If honest, they are not qualified by education to choose between the works of competing artists, and too generally some private influence warps their views, and the whole matter becomes a job. It is individual effort that will urge the march of progress, and every man that builds or plans a house is doing something to help on or retard its course.

The people will, in their homes, in time, develop a

national architecture; not perhaps a new one, for that is not necessary, but a new use of eternal principles of truth, which will mould forms of beauty appropriate and consistent. Already may be seen a change—the working of modern art is different here to what it is in Europe—in even the same styles, the materials and other requirements here wreath themselves into modified forms, and, where honestly developed, the modern Italian of American villas comes in different aspect from the architect's hand than would the same in Europe.

So of other styles in use; and it remains only for the architect honestly to use legitimate embellishment of the materials the country supplies, and sedulously to meet the domestic wants of the day, to dot the land with homes which may, in their appearance and intention, show their in-dwellers to be a people of taste and lovers of beauty.

These few preliminary remarks permitted, the class of homes demanded by the several seekers shall now receive discussion; and having been naturally drawn into the brief description of the various styles of architecture in early use, which seem best suited to the present domestic use by the necessity to explain the correct origin of the Villa, the next chapter will offer examples of various buildings designed to suit the people who may wish such houses as the modern Villa represent.

CHAPTER II.

THE SMALL VILLA IN THE SUBURB.

The villa may be of different size, and may be planned to suit a small suburban lot, or the widely-spread lawn. The small villa near a town only differs from the larger residence of the man of wealth and leisure in its extent and cost; the same rules govern its design, and, in similar circumstances of site and material, the same style would be appropriate to each.

A home such as a family of moderate means would require in the suburb or upon a small lot in the country, not so distant from the city as to preclude the possibility of attention to business there, would be found in the small villa, the description of varieties of which will form the subject of this present chapter.

Such a villa should be neither a small city house nor a country cottage, and yet the circumstances that it seeks to accommodate necessarily give it something of the character of both. The requirements of social life are nearly the same in the suburb as in the city, but the conveniences of domestic arrangements not so easily subserved. Hence the kitchen offices and adjuncts to

the house must be, as compared with the parlor-accommodation of the villa, on a somewhat more liberal scale than the city building would need. The limits of ground, however, not permitting so widely spread a plan as the country cottage might without inconvenience possess, a distribution of the space must be so carefully made as to result in a compactness nearly equal to that required in the town.

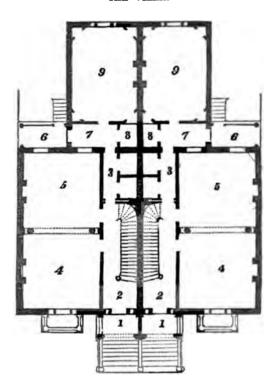
The style of finish, too, would take its tone from its city neighbor, at least so far as to show a studied completeness of parts, and external adaptation to the evidences of artificial elaboration around, in the shape of more frequently seen smoothly paved sidewalks, trim stone walls, or ornamental railings, and the carefully dressed gardens of the suburb. Adjacent to a large city, a certain unobtrusive elegance should be given to the villa, rather than an effect sought to be obtained by boldness and relief; and, where the building occupies the entire width of the lot, there should be as few breaks or angles from its line of front as possible, so as to obtain all the effect of breath that its size will permit, and at the same time show an economical use of the ground.

Frequently two neighbors, owning adjoining lots, agree to club together and build two houses together, by that means saving some little room and the expense of additional external walls, and at the same time forming a more effective show than each could have accomplished singly. Such a style of structure is more commonly seen in the suburbs of European cities than

in those of America, the good people of the latter country generally preferring to show each one his own individual taste, and to club together rather for political mass movements, or, when induced to live under one roof, as in a boarding-house, for sociable or economical considerations, than for any desire to gain a better chance of external effectiveness in the landscape by the union of their separate dwellings in one composition.

Such double buildings are, however, in increasing demand, and the first design I shall offer will be of a villa contrived upon an economical scale for the accommodation of two distinct families. I have supposed each lot twenty-five feet front, and say two hundred feet deep, making fifty feet for the frontage of the double house. The building itself, inclusive of porch and rear projection, would not require more than sixty-eight feet for its depth, leaving ample space to allow the building to be sufficiently set back from the sidewalk, and at the same time to arrange a small yard and garden in the rear.

The proximity to the city, and the finish of the neighborhood requires the exterior of the building to present an appearance of simplicity and elegance, and in the interior arrangements so much of city sentiment must necessarily be retained that the finish and distribution of the principal rooms cannot greatly differ from such as would be seen in the town.



PL IV.—SEMI-DETACHED VILLA—PLAN OF PRINCIPAL PLOOR.

The plan of the principal floor shows a roomy porch, 1, to which access is gained by stone steps, partly hin and partly without, and out of this the hall-door ns into the entrance-hall. Beyond, this in the rear, is inner vestibule, shut off from the main hall by a ing door filled with ground or stained glass, and in it store and hat and coat closets. On the side of the

hall are the drawing-rooms which, instead of being divided with folding or sliding doors, as is usually seen, are in one open suite, broken, however, by columns which give better proportion to the apartment, render more easy the adaptation of furniture, and support the partitions of the floor above.

The front drawing-room, No. 4, is lighted by a single wide window, which opens into a balcony in front, and above which may be a light framework of wire, over which, in proper season, climbing plants may with ease be trained, and cool and perfume the air that steals into the building.

The rear drawing-room only differs from this in that it has two windows, each filled with ground or stained glass, and opening the one into a small veranda, No. 6, and the other into a vestibule, No. 7, which connects the rear wing with the main building. In this vestibule is a waiter-pantry or china-closet opening into the dining-room, No. 9, and containing a dumb waiter communicating with the domestic offices below.

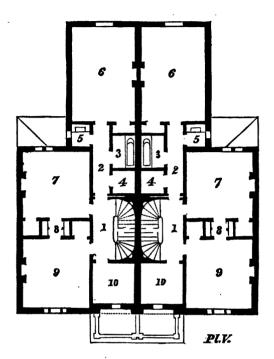
The dining-room is of octagon form, each angle containing a small closet, and there is but one large window in the end, although if position rendered such a look-out desirable, windows could also be provided in the wall opposite to the fire-place.

Below this floor, the kitchen and other domestic offices would be arranged in the following manner. In front, under the porch, could be the basement entrance, and the room immediately under the front drawingroom could be used either as a family apartment or breakfast-room, or be appropriated to the servants as seemed best, or in some cases it might be retained as the dining-room, and the apartment so designated upon the plan be converted into a library.

Between this room and the kitchen, which would be immediately in the rear, would be space for large store and china closets, or for the furnace or other heating apparatus, if the situation did not permit a cellar again below; and under the dining-room and vestibule, in the wing building, could be arranged a laundry, with larder, and ample space for store closets, the laundry not extending to the extreme end of the building, but permitting a wall across, about four feet therefrom, to secure a convenient place for the provision of those necessary out-buildings, which, when detached, so constantly disfigure a suburban building.

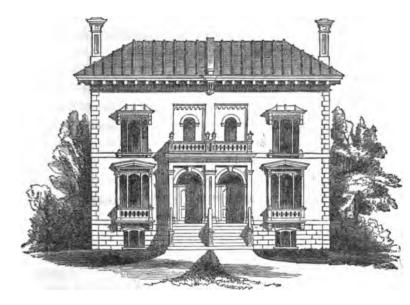
As, in all probability, a cellar would be provided under the whole building, the necessary space for storage of coals, wood, &c., can be supposed to be reserved therein.

The chamber accommodation can be at once understood by a glance at the proper plan. The staircase reaches a central hall (lighted from above), No. 1, and from it is a passage, No. 2, with a bath-room, No. 3, a linen closet, No. 4, and a roomy water-closet, No. 5. Beyond these is a chamber, No. 6, the same size as the dining-room below. The bath-room and entry are lighted by a skylight in the roof of the wing. The rest



of the building contains three good chambers, Nos. 7, 8, and 10, well provided with closets, and of convenient size, the partition parallel with the party wall not being as on the floor below, but placed nearer to the external wall, so as to make the size of the rooms more equally divided. Between 7 and 9, an entry, No. 8, is provided, so that the rooms may connect, a great convenience for family use.

Above this floor, the roof will contain two good rooms for servants, in an attic, which is lighted by windows in the rear, an arrangement which does not disturb the simplicity of the architecture of the principal front. The internal finish and minutiæ of the rooms will be dwelt upon when the exterior of the building has been described.



PL. VI.-ELEVATION.

The front presents an uniform and well-balanced arrangement of its details, and the style of architecture is Italian, partaking, so far as modern arrangements permit, of the character of the Venetian school. The

entrance doors of each villa are grouped together into one central mass, the purposes of separation being served by a partition upon the platform between each half of the porch, and by a balustrading, or other division, extending down the steps, and so across the front yard to the outer wall, or fence.

The lower portion of the building is sufficiently raised above the level of the ground to permit ample light to the basement window in front, so that the room can be used in either manner that has been previously described. The entrance to the basement is under the platform of the porch, to the level of which two or three stone steps would be provided outside, and immediately before the front basement window an iron grating should be inserted, to cover an area giving light to the subcellar below. This grating would also afford a convenient mode of storing coals or wood, unless a coal-cellar were made under the sidewalk, with a shoot level therewith, as is sometimes done in the suburb. Above the basement window is a balcony, supported upon brackets, on to which the large window of the front parlor opens; above this window is one of proportionably decreased size to light the chamber; and these, with the windows over the entrance porch, form all the openings upon this façade. The attic is lighted by dormer windows in the rear.

The other architectural details of the design may be understood by the illustration, and are all conceived in utmost simplicity. The material which would be used would, necessarily, somewhat affect the extent to which these details would be carried out; I have supposed either brick with stone dressing to have been used, or brick covered with mastic, and the architectural embellishments of either the same material or of terra This latter mode of cheaply finishing and decorating buildings is getting into general use. properly composed and put on, is an exceedingly durable and elegant covering for a brick house; but there are not many masons who know thoroughly how to use it. I can, however, refer to houses where it has been employed, and has remained, without requiring repair or expense of any kind, for several years, and the expense is not so great as using pressed brick, and scarcely much more than that of good facing brick, painted three coats, would be. Terra cotta is now manufactured in New York and elsewhere in great quantities, and may be procured of a quality as durable as any species of stone, and as impervious to frost.

The roof should be covered either with tin put on in rolls, or with slate; and a tolerably steep pitch, so as to allow of the outlines being seen, is necessary to give the proper effect to this design.

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The chimney shafts may be of brick and the caps of stone or terra cotta.

If built of brick of such a quality as to look well un-

painted, and the dressings be made of stone, a pleasant contrast would be found in using soap-stone, now so plentifully and cheaply provided by the Massachusetts quarries, which with the red color of the brick would appear to great advantage. The Caën stone from Normandy, in France, is also now to be procured here very cheaply, and being (like soap-stone) very easily cut, the value of the labor saved, more than compensates the superior cost of the material.

In the West, where brick is frequently manufactured of a beautiful cream color, this design would look very well entirely constructed of one material, as with the exception of some of the ornamental details, such as vases, columns and trusses, or brackets, all the architectural features could, with a little ingenuity, be formed in brick, the cornice being made of wood first protected from danger of fire by a good admixture of lime and sand with the paint, and afterwards colored (and sanded) the same tint as that of the brick.

Internal Finish.—The drawing rooms should be twelve feet high in the clear, with a skirting board twelve inches and a half high, made in two members, the lower one consisting of a plain plinth seven inches in height. The cornice should be eight inches deep upon the walls, and extend twelve inches upon the ceiling. The first or lower member should be a bold bead, and above that a hollow, in which may be enrichment or not as wished; the other members on the ceiling

should be few in number and simple in outline; and about twelve or fourteen inches from the last member of the cornice upon the ceiling should be a drop moulding running round the rooms, forming a large panel on the ceiling, in the centre of which would be the rosette or other ornamental finish that is usually seen, and from which the gas or other lamp would be supported. The size of these two rooms together, would be a little less than sixteen feet wide by thirty-two feet in length.

Between the rooms should be columns and antæ, and above these an eliptic arch extending across the ceiling, and sufficiently deep to allow the cornice to be returned around on each side, and a space at the highest point of the arch of about eight inches deep. The antæ should project about three inches from the walls, and may be furred out and formed in hard finish or plaster, the same as the walls, the columns and bases being of scagliols and the capitals of composition. The Ionic order would be the most appropriate for these, Corinthian or Composite being too dressy, and the other styles, such as Doric or Tuscan, too plain. The walls should be papered, and the pattern chosen a quiet, unobtrusive arabesque of stone color, or other self tint, upon a ground relieved in gold. The arch above the columns and the antæ may be covered in marbled paper highly sized and varnished. to conform to the finish of the scagliola columns, or they may be painted in fresco. The cost of these details will not be great, if even they have to be manufactured on

purpose; but where such columns are kept on hand, they can be purchased for from one hundred to one hundred and thirty dollars the pair, including caps, bases, and a marble plinth. Where not procurable of scagliola, the columns can be made of plaster upon a wooden frame-work, and neatly covered with marbled paper finished in the same manner as has been described for the antæ—or the whole work, arch and all, may be very fitly left of oak or other native wood.

A lively and elegant finish may be given to the ceiling, by cutting out a wreath of floral decoration from some one of the many paper patterns that are suitable, and attaching it to the space left between the cornice and the moulding, which forms the panel; with a little taste, all the effect and brilliancy of frescoed embellishment may be secured at very small outlay.

The casings and architraves around the doors and windows should not be heavy, and the members very few; as a general rule, where a bold and impressive feature, like that afforded by the arrangement of the columns and arch dividing the rooms, is introduced, the eye should not be drawn away from it by any too massive details elsewhere. The width and size of the window in front, and the quiet effect of the unbroken wall spaces left elsewhere in the room, will always give a sensation of repose and perfect proportion, with an air of elegance, that will require but little expenditure in the way of costly furnishing to effectively complete.

The chimney breasts of the fireplaces would, of course, be placed exactly midway between the columns and each end of the room, and the mantels should be as quietly unostentatious as possible, their beauty consisting in form rather than elaborate design. An arched opening, with a heavy bead on the end, the sides rounded, and above a somewhat heavier slab than is usually seen, supported in the centre by a moulded truss, that serves equally as a bracket to the shelf, and as a key-stone to the arch, will be the most appropriate form.

The carpets—darkly tinted green ground, with a mosaic pattern in wood colors; the curtains somewhat the same, only the pattern in arabesque, so as to match with the forms on the papering; the furniture rosewood, and here and there an oak and a papier-mache chair or little table, and upholstered not all alike—but to my taste, all in bright and pretty chintzes, in lieu of damask or brocatelle—such are the tints the home-decorator might judiciously follow, for, at least, the one-half of this double villa.

The small vestibule between the wing-room and the main house—and also, perhaps, the veranda, may have as floors a paving of encaustic tiles, now cheaply imported from England, more durable than marble, and of far more lively effect. Further of internal finishing I dare hardly hint, for fear, reader, you be frightened at the idea of cost—for anything new, now-a-day, is apt to

be thought necessarily expensive—and, but pleading for, at least, this one trial of the effect of any mode of finish but the cold, hard, white walls, whose severe surfaces are illy reconciled with the gaudy carpets and brilliant scarlet or purple upholstery, I leave the further furnishing of this little villa to the direction of the same good taste that would hold to its selection as a fitting home for suburban residence.

The cost would, for the double building, vary from seven to nine thousand dollars, but this sum would be materially reduced by omitting the wing building, and using the front room in the basement as the dining-room—an arrangement which might, by the way, be considered temporary, and the wing alluded to, be added at future time. The general measurements of the building may be inferred from the inside dimensions before given of the parlors.

The situation in which such a building would be appropriate, may be decided by the following considerations:

The continuation of the main avenue of a large city into the suburb, connecting as it does the compact arrangement of buildings in the one, with the more frequent openings of the other, leads the eye naturally to look for a gradation in the changes that lead from where the view is bounded by naught but piles of buildings, to where they are few and far between. In the vicinity of large cities such a gradation very naturally presents

itself, because as the area of business neighborhoods becomes extended, residents seek their homes further from its noisy and crowded centre, and the regular rows of streets upon streets once passed, the suburb adjacent to the city gradually assumes a finished and occupied appearance. Frequently, however, the ground immediately about the outskirts is left nearly in its natural state—hills or low places being levelled or filled in only to the extent convenience of ready travel demands, so that the undulations of the surface naturally cause the building sites to present almost every variety of land-scape on a small scale.

The even plain-like land sometimes around a town is easily apportioned out, and almost any style of house the owner's fancy may select can be adapted to the lot; and as such a nature of the land frequently gave rise to the selection of the site for the founding of a large city, many of our suburbs present such a character. Large trees are not commonly found in companionship with such land, and hence the foliage around the dwellings is usually of very recent planting, and probably coeval with the building itself. A house thus placed must be complete in itself; must be designed so as to dispense with tree shade if it be unprovided, and to appear to no disadvantage when time has reared the heads of forest children around it. Completeness and careful attention to minutiæ should characterize the building and its belongings-nothing must be left to situation and to the assistance of the pictorial effect of landscape, woody

background, or boldly rising hill. So the building should be composed in its aspect, and finished nicely as to all its parts. By the side of the suburban road, with many homes of similar character, though differing in extent and style of finish, arranged around—with trimly kept front yard decked with evergreen and well preserved stone pathway—with flower-garden in the rear, and with all that showed to the passer-by in perfect congruity with the building, this semi-detached villa would be fitly placed, and as it is a type of a building in common demand, and the circumstances (such as I have enumerated) are frequent, I have been particular in its description, to enable the reader that contemplates selection of such a home, to choose knowingly, and to find satisfaction in his choice.

Further away in the country, or in the suburb of a country town, the ground changes so continually in its character, that a less uniform description of villa becomes fitting, and as city buildings are left behind, there is greater variety of choice in the style that a house may assume. Generally, however, the lots upon which the buildings stand, are too circumscribed to permit other than a contracted floorplan, and as such houses are too often built by those whose money is suddenly acquired, at a pace with which taste has not had an equal growth—hence such villas

have a pretensious yet crippled look that might well deter many a man of taste from venturing beyond the old, well-beaten track of plain white building, with gable towards the street, that his fathers before him loved to range in well-ordered rows beside the wide and tree-graced streets of New England.

Yet even this economy and desire to ape city apportionment of land, that causes the land surveyor to level off every inequality of surface, and straighten every road and boundary line that prevents the parallelism he deems the perfection of "laying out," is susceptible of more artistic treatment, and the buildings so erected may be far more attractive, at no greater cost than suburbs generally show. Continuity of design is made necessary by the symmetry of the divisions of the land; and although different tastes and changing occupants make the attempt to embody any whole design very difficult, surely those who, owning several lots, build, as is so commonly the case, a row or a number of houses to let or sell, might so contrive the planning and general effect of the edifices as to secure a good and pleasing grouping.

The single house so placed must, from the very form of its site, show but few breaks in its outlines upon the ground. The contour of the building, if broken, must be by inequalities in height, and this brings me to the description of a class of houses frequently in demand.

The suburbs of a city or country town are usually so

laid out as that the most desirable points of the landscape shall be looked upon from the choicest building sites; hence, if there be any distant prospect or near beauty to be enjoyed, the villas that are erected would probably be contrived with reference to a general participation therein.

On undulating land, where perhaps a distant water view or other loveliness can be looked upon, provided the elevation be sufficient, a style of building has recently come very much into vogue, which having an honest purpose to gain, deserves study. I allude to the villas, of varying size, that one sees, possessing each one a tower, (sometimes two,) for the purpose, ostensibly, of commanding a distant view. Where such a feature is of use, it becomes a great beauty; where merely put on because other houses possess it, it is a deformity that cannot be too much reprehended.

The Campanile, or bell-tower, is almost a peculiar feature of the Italian country house, from which originated the villa of modern days. Its conspicuous and lofty elevation had then a meaning and use so evident, that to copy its form now without having the excuse of its intention, is, to say the least, a mark of very questionable taste.

Its introduction into a modern villa can only be sanctioned by the extended view that its upper room affords. To plan it therefore as an appendage to a dwelling seated on a smooth and low plain, is in violation of the

rule of fitness, so important an element of architectural beauty

The small square villa, its form thus determined by the rectangular boundary lines of its site, and the necessary economy of space, will only permit a tower where the situation controls an extensive prospect.

This distinguishing feature of the design should therefore exist as the prominent member of the composition, standing out boldly in front, and so connected with the general mass of the building as to be, as it were, an addition to the arrangement, and at the same time a support and buttress to the whole. It should be placed at a corner, and yet bound in with the general lines; showing that it could be removed and yet the house not suffer, though, in its place, it is both appropriate and valuable.

Its height and proportion should be such as to give the mass, at the proper point of sight, a pyramidal form, which can be done by making the building rise in regular gradations from the ground; and as the harmony of house and landscape can probably better be preserved by the prevalence of parallel and verticalines than by those of a perpendicular tendency, the mass rises in regular steps from its foundation. First is the small break of its base; then come the lines of its porch and veranda roofs; then, second in importance, the main body of the building, and last of all the overhanging canopy of the tower. The summit outline becomes

thus broken, and the same play of light and shade is secured as if the ground permitted of marked breaks and projections of the plan.

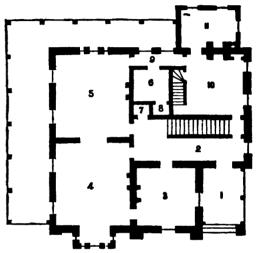


PL VIL-ELEVATION OF SMALL SYMMETRICAL VILLA.

Here is an illustration of the bearing of these remarks. Situated near some town, on a regularly circumscribed site, the surface of the ground symmetrical and even as the suburb usually is, and yet enjoying, when at the due elevation, an extensive and agreeable view, this design would be found, in execution; peculiarly adapted to such a spot. Its form possesses sufficient regularity to harmonize with the buildings in the city, whilst its character shows it to be a link between town and country.

Its size and capabilities would suit a family of moderate size, and its arrangement permits of the enjoyment

f every comfort in living. The distribution of the poms will be understood by examination of the plans of he principal and chamber floors.



PL VIIL-PLAN OF PRINCIPAL FLOOR.

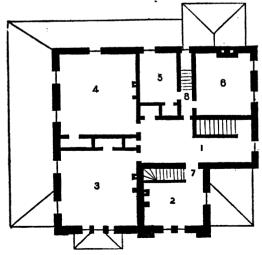
No 1 is the Entrance Porch—composed of simple posts and flat arches—and formed by roofing over the space left between one side of the tower and the main building. This leads into a hall, No. 2,—ten or eleven feet wide, containing the principal stairway, and having doors into the Library, No. 3, the Drawing-room, No. 4, and the Dining-room, No. 5. These three rooms open into each other so as to afford a really handsome suite of apartments for evening occupancy. The hall contains also a large closet, No. 7. Adjoining the Dining-room is a passage, No. 9, leading into the kitchen, and also

opening upon the back piazza; and between the dining-room and kitchen is a large pantry, No. 6—lighted by means of a glass door, and within it a china closet, No. 8. The kitchen—No. 10, has connected with it a large laundry or back kitchen, No. 11, and has also a back and cellar stairway.

The rooms are all of liberal dimensions, the library being fifteen feet square, the drawing-room sixteen feet six inches by twenty-two, and the dining-room sixteen by twenty. These rooms are twelve feet high.

Surrounding the house on two sides—south and west—supposing the building to front east,—is a wide veranda, of a character similar to the porch.

The accommodation for sleeping may be seen by reference to the chamber floor.



PL IX-PLAN OF CHAMBER FLOOR.

The principal stairway conducts to a large open hall, No. 1, well lighted and airy—which communicates with all the several rooms. No. 2, is a sleeping room over the library, twelve feet by fifteen—having a space taken from it to contain a stairway, No. 7, to the upper room of the tower, which is immediately over this.

Nos. 3 and 4 are of the same size as the drawing and dining-rooms—less the space occupied by closets—No. 5 is a small sleeping room or bath-room—No. 6 a chamber, and No. 8 the back stairs from below.

Over this portion of the plan are two large and airy rooms in the attic, which can be finished off, if requisite, for servants—and with the third room in the tower, make in all, the number of seven or eight sleeping-rooms, and a large bathing-room, if desired.

This building is capable of construction in any material; although brick has been supposed to be selected. Its cost would vary in different localities, but would not materially differ from the estimate that is assigned to it—namely four thousand dollars—it might be less—and extremely elaborate inside finish would cause a demand for a higher sum—the above named, however, would finish the building in an effective, substantial, and appropriate manner.

Sufficient has been said to give a general idea of the character of this building. To determine exactly the circumstances under which its erection would be desirable, becomes the next consideration.

In all suburbs the natural and the artificial must blend; nature is as yet not purely nature, her struggling efforts to escape the thraldom of straight lines and level surfaces that convenience has rendered necessary in the city—here and there have evidence in the wooded knoll or undulating grass sward, but her own full expansive luxuriance has not scope as yet; hence, to conform with natural forms, the artificial conceptions of the architect must be embodied within more set and regular limits than he should permit himself in the open country.

Not only do the truest principles of art demand this, but motives no doubt of more generally admitted importance, namely, those of economy of money and of space; and so truly does this general law affect the realization of an architect's design, that it is only where the regularity and symmetry of the ground have been made the basis and governing element of the composition of the building placed thereon, that a pleasing whole can be produced.

But this symmetry and regularity do not necessarily involve an absolutely bald and uniform building, or there could be neither variety nor originality; they only necessitate that the whole effect of the mass, however multiplied may be its parts, or however varied their grouping, shall conform in its contour to the uniformity of the site.

On a perfectly regular parallelogram, such as is so commonly seen to be the form of a suburban lot, a build-

ing to suit its situation must also in its leading lines be a parallelogram. If its parts be broken, and the arrangement of the rooms renders breaks desirable, the unity of the whole may always be artistically secured by the position of verandas, porches, terraces, balconies, or such other connecting features as may unite these subordinate branches of the main stem into one regular and syste matic plan. That the form may be varied, however, almost infinitely, and yet within the circumscribed area, a little consideration and an examination of the sketchbook of an architect will soon show; but however formal may seem the rule I thus assign, it is certain that entire beauty—beauty produced by perfect adaptation and pictorial congruity—can only be produced by a careful obedience to its requirements.

Hence on a spot of ground—by its position and form confined within a geometrical limit, such a building as that just described would be fitting—at least so far as its outlines upon the ground are concerned. Its exterior treatment would of course be modified by the character and elevation of the surrounding scenery.

The distant prospect invites the view—to secure enjoyment of its beauties, the elevation of a tower or similar feature is justifiable; there is a pleasing peep from the side lights of a projecting window—hence the bay in the parlor; tree shade is not sufficient to afford a natural shelter from the sun, and so the house is on two sides protected by a wide veranda; thus without pursuing

the matter farther, each detail of the plan is rendered necessary or is modified by the requirements of the in-dwellers and by the character of the external features.

There are situations that would not admit of the erection of such a house on account of the extreme uniformity of the surface of the ground not requiring so marked a feature as the tower; hence a perfectly regular and uniform building would appear in better harmony.

Such a building should be simple and its details all subservient to a general unity of design. Not that the surfaces may not be broken; on the contrary, a something in the treatment that shall afford a play of light and shade is very desirable.

This can be gained, most simply, by the bold projections or broken outlines of the roof, or more advantageously, (because changing the otherwise monotony of the rooms) by the introduction of some novel and striking feature on the front.

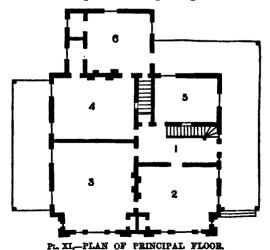


PL. X.-FRONT ELEVATION

The annexed design shows an arrangement in conformity to these remarks.

In this the utmost regularity of outline is preserved, and yet a play of light and shade is given to the building by the treatment of its parts.

The roof line, though unbroken, has yet great relief by the overhanging of its cornice and the arrangement of its supports. The veranda, balanced by its equal projection on either side, gives the building base upon the ground and helps the pyramidal effect of the building, which the central position of its main chimney shaft completes. The front is relieved by the projection of the windows in the rooms, the arrangement of which will be seen in the plan of the principal floor.



The entrance is from the side veranda into a hall,

No. 1, containing the principal stairway, which, in this case, from the necessity for economy of space, is made to lead at once from near the hall door. On one side is a library, or morning-room, No. 2, in which is a portion of the projecting bay window, which shows upon the front elevation. No. 3, is a larger room occupied as the drawing-room or parlor, the bay window of which, instead of being separate, is connected with that in the library, forming one unbroken and bold projection across the front, the space between the two windows being devoted to closets opening into each of the rooms. In the drawing-room, the door of this closet might be finished with a mirror front to conform to the side light in the opposite end of the bay window, and in the library, it might be treated as a book case, in either instance susceptible of very appropriate and ornate effect. No. 4 is the dining-room with large pantry communicating with kitchen No. 6, attached to which is a sink-room. There is also a back and cellar stairs, permitting the other necessary domestic offices to be in the cellar below; supposing the space No 5, which in this particular instance is reserved as a sleeping-room, be kept for that purpose, or if not, its position would allow store-room, scullery, or other requisite apartment for household use, to be arranged.

Above are five good chambers, well supplied with closets, and if necessary, rooms can be made under the roof on the back part of the building, lighted by windows between the brackets under the cornice.

The external and internal finish of this house might be of a simple, inexpensive character, and supposing it to be constructed of frame, filled in with brick and ceiled on the outside, its cost need not exceed from twenty-two to twenty-five hundred dollars.

Should the position of the principal staircase be found an objection, more space might be allowed where the back stairway is shown, and one placed there could answer the purposes of the two.

Such a building as this would be found very suitable for erection on a small and uniform lot, where the features of the landscape were quiet and simple. Its effect would be entirely relieved from tameness and the economy of its construction, in consideration of the liberality of accommodation its plan affords, should recommend it to a family needing such a house.

The sizes of rooms are as follows:— Library sixteen feet by fourteen; Parlor sixteen by twenty-one; Dining Room sixteen by fifteen; Sleeping Room ten by thirteen; Hall nine feet wide;

or exclusive of bay windows the square of the house may be considered as thirty-four by thirty-two feet.

The height of the principal floor should be eleven feet, and of the chamber floor nine feet six inches in the clear, and about two to three feet rise above the ceiling

to roof, so as to afford space above for storage and if so required for a servant's sleeping room.

That portion of the building containing the kitchen, should be only of one story in height. and of such size as the ground would allow.

It will be seen that the arrangement of this and the former plan are somewhat similar; the two show different treatment of nearly identical demands under changed circumstances. Inasmuch as the latter would occupy a lot in some respects less valuable and desirable than the former, and hence, might be supposed to be required for an owner of more limited means, the cost of the building is assumed at a smaller amount.

The arrangement of the grounds about the two buildings would slightly differ. In the first case—supposing the extent and surface of the lot would so permit—a broken, terrace-like outline would be preferable; the walks not so straight and the disposition of the flower-beds and clumps of shrubbery more irregular. The fences, gates and steps should also partake of an architectural character in conformity with the house.

In the second design, the level surface of the site upon which it is conceived to stand, would only permit a very simple, unpretending arrangement. If of extent enough to allow of a rustic character to be given to its accessaries, such should be the idea that the owner must attempt to carry out; trellised vines, tastefully framed gates and fences, with wire bordered flower beds, will

help to impart an air of refinement and taste inexpensively employed, whilst the winter aspect might be thought for, and evidence shown of the fact by a few carefully grouped evergreens to replace the bright flowers that the cold shall have banished.

With a few words as to the color of the external surfaces of these buildings, I will close the description of the two designs, which may not unfairly be taken as the type of houses suited to the circumstances and situations detailed.

Whether the brick may be left honest red or clay-colored brick must depend very much upon individual taste. Where the material is of excellent quality, possessing smoothness of surface and evenness of color, its bright tone would contrast very well against a background of dark green foliage, especially if waving branches in front partially obscured the building. But as brick of this description cannot always, or at least, but at considerable expense, be procured, it is better, both on account of preserving the material and of rendering the color of structure more light and lively, to paint it in oil colors. In this case the tint should be light, partaking somewhat of a deep cream-color, warmed with the slight admixture of some deep transparent brown, as a small quantity of burnt sienna.

The same color would also be suitable to the frame building, remembering, however, that the sombre undercolor of the brick would be felt through the coats of paint laid upon it, and that, therefore, the first coat should be many shades lighter and warmer than when finished the tint is designed to be. The details of both houses, such as cornices, window dressings, veranda mouldings, &c., might be made more prominent by coloring them a shade darker than the main building, though this step must be taken with great caution, so as not to divide the house by stripes, or produce too marked a line of contrast.

In conclusion, I would remind those seeking to secure themselves such a house as either of the above, that trees are as necessary as the paint to give the house a pleasant tone of color. The shadows cast across the walls by the waving branches, and the bright revealing of the detail of the building in its proper tint, will give a lively variety of effect no artificial adornment can secure.

Oftentimes, near a large city, a house of still more economical character than either of these examples is needed. Too seldom is this want sought to be supplied, and many a respectable mechanic, or young beginner in business, is forced to live with his family in a boarding or lodging-house, when he might, at an equal, possibly at a less expenditure, have a home of his own.

Landlords rarely build such little villas, finding land more profitably covered by town-like and lofty erections, with several inmates in each; but as many seek to found and own their houses, where land can be purchased at anything approaching to a reasonable rate, a villa of moderate cost would suit the wants of a very large and increasingly prosperous class.

For from twelve hundred to eighteen hundred dollars a house could be secured, a good, comfortable, and even elegant little villa—just such an one as many a family are even now seeking. Some buildings of even less cost will be found in another section of this book.

Perhaps the lot on which it would stand is not of that particularly circumscribed and regular form that has been just described; in all probability, being a mile or two farther from the city, on account of the diminished value of the land, a less niggardly limit has been assigned to its boundaries, and a little enlargement of the plan is permissable.

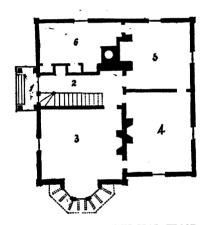


PL XIL-ELEVATION.

A small garden too may be laid out around it, and even should the little villa be intended to be afterwards enlarged, as means and family increase, the house, such as will presently be described, would form a good beginning of a more extended building—or be complete in itself if left as represented.

The little villa here designed would be very suitable to such a purpose, economical in form and construction, simple and yet artistic in appearance and capable of erection at a small outlay.

The accommodation afforded by the plan is as follows:



PL XIII-PLAN OF PRINCIPAL FLOOR.

The entrance is at the side, a light rustic porch, No. 1, sheltering the hall door. The hall, No. 2, contains the staircase, and is seven feet wide, increased at its one end to eight feet three inches, forming a lobby to the rooms.

In front is a parlor, No. 3, a cheerful, pleasant room with a bay window overlooking the street and a smaller window on the side. This room is fifteen feet square exclusive of the bay window, which projects four feet.

No. 4 is the family dining and living-room, which communicates with the parlor before described, with the hall, and also with the kitchen No., 5.

The kitchen has attached to it a scullery or laundry, No. 6, which is well provided with closets, and this completes the distribution of the rooms upon this floor.

The chamber accommodation is equal to that below, comprising three good rooms over parlor, dining-room and kitchen, and a servant's room over the scullery. Closets can conveniently be planned, and within the prescribed limits much comfort can be provided for.

The inside finish should not be so entirely plain as would be seen in a cottage of similar extent further in the country; the parlor may have its ceiling enriched with a cornice, and the doors and windows somewhat more elaborately finished. With the walls neatly papered, and the mantel-pieces of marble cheaply fashioned, this cottage villa would require but small outlay to meet all the requirements of good taste.

The form of the exterior fits it for erection in any material usually employed, and the roof is of sufficient pitch to allow shingles to be used, if safety from fire, on account of contiguous buildings, permitted such a mode covering.

The cornice, porch, bay-window, and canopy over window in the dining-room, are all of the plainest character, and if means permitted the expenditure of a few dollars more upon the embellishment of these features, the general proportions of the building are such as to permit such added decoration with very good effect. Painted in color of a similar nature to those tints recom-

mended in "Rural Homes," such a little villa would appear to advantage nestled amongst the trees, or modestly standing in its own little garden beside some larger mansions, and would give pleasure to the passer by its appearance of appropriate simplicity, whilst it met the requirements of its owner in every point of habitable commodiousness.

Should an addition be wished to its accommodation, the kitchen might be made a dining-room, the present dining-room be used as a library or parlor, and the kitchen extended in a wing towards the rear, made of one or two stories as was deemed best, or the additional building might extend entirely across the house, and a larger space be devoted to the sleeping room, closets, and sink room. No light would be obstructed by such an arrangement, as in either case an outer wall would be left for windows to be arranged as wished.

Thus this little cottage might be economically made a villa of really liberal accommodation at a small additional cost, and is, therefore, suitable as a design for examination by many who are seeking such a home.

Before bringing this chapter to a close, a few words seem appropriate respecting the little gardens and yards around buildings so situated, and the proper arrangement and concealment of the out-buildings. Generally the space is too circumscribed to allow an attempt at much in the way of gardening; still the little land that remains after the house has spread its outlines on the ground, is susceptible of very pretty treatment. The fault too commonly to be remarked in such villa gardens is their stiffness, frequently combined with much pretension.

If only a few feet, say for instance, fifteen to twenty, can be left from the front line of the house to the aidewalk, all that can fairly be attempted, is a pretty border between the walk to the hall door, and a boundary fence on the side, and perhaps a dwarf row of evergreens in front; the space between being a neatly kept bed of flowering shrubs, with the bright verbena, and perhaps one or two standard roses to enliven the coloring. Creepers twining up the front-concealing, may be, the cellar windows, and wreathing their pliant beauty around the veranda or porch, add much to the loveliness and home appearance of the spot, and in the back-ground trellises with vines may screen a little vegetable patch or any building of not desirably inviting view. Should there be at the back any little building for a wood shed or for a small stable, the out-house should form a portion of its arrangement, or if nothing of this kind is required, the out-house that is necessary may be concealed by a screen and should be as low as convenience will permit. It will be least intrusive when built against a fence sufficiently high so that the roof may be a lean-to, its lowest side in front, and with a light lathing on an open screen before it. Thus

made, it will not attract attention, or disfigure the grounds.

It is painful, and yet ludicrous, to see how many a really prettily contrived place is spoiled by the bold pertinacity with which this and kindred buildings are thrust forward to the public eye.

Where the owner of a small suburban villa has the blessing of trees already on his place, he will find no difficulty in making his little homestead as lovely and elegant as taste can demand, but as, unfortunately, very few newly laid out suburbs possess nature's leafy treasures, the best that can be done will be to plant a few quickly growing flowering shrubs and evergreens, of such a size as shall at once afford the shade and concealment necessary, to act as a setting to the architectural gem that is to rise from the ground. This will be better than to attempt to secure the shade of larger trees of slower growth, although one or two such trees may be planted in connection with the plan proposed.

In the country, home founders can afford patiently to wait the growth of such large trees as the improvement of their place requires, because the building can spread itself so widely on the ground and embrace so many advantages of artificial protection from the sun in the shape of veranda, porch, and ombra, as to render the immediate enjoyment of leaf shade less essential.

In the suburb, space is too valuable to hope for this, and, therefore, what is to be done in the way of arboriculture should be consummated at once. The arrangements of the grounds, however insignificant they may seem from limited space to be, should go on hand in hand with the construction of the building—at least, so much so as that their precise character be determined and the house in its arrangement as regards position of entrancedoor, projection of bow window, and general outline on the ground should be studied in connection with the garden effects that the situation will permit, and the whole made congruous and appropriate.

Where an architect is employed, he should always be asked for a sketch for the arrangement of the ground, nor would he refuse his aid, knowing full well that the building and its gardens are so closely dependent one upon the other as to greatly need mutual consideration. The landscape gardener and layer out of grounds (when such an artist is called in) will always, if he be an artist, find such a hint of the architect's intention of value, and the two should work together, though I fancy not advantageously can the two functions be blended in one person. Certainly the education of a gardener cannot make an archi tect, nor does an architect's profession and experience fit him for the practical duties of a gardener—though the architect must of course, to be an artist in his profession, be able to appreciate and direct the out-door effects to be secured in connection with his architectural design. When the two have the chance to work together, and each is an artist, then the result is a charming combination; but where the one invades the precincts of the other, there must we look for such barbarisms as resulted in clipped yews, and geometrically contrived walks and plantations which architect gardeners made in England in the times of "Good Queen Anne," or for such uncouth violations of all architectural and artistic rule which gardener-architects have favored the world with from the days of the same good lady until now.

CHAPTER III.

THE SMALL VILLA IN THE COUNTRY.

No evidence is so certain and pleasing of the healthy prosperity of a country, as the number of its smaller rural villas. These abodes are the marks of competency and steady growth, and show a more equal distribution of the rewards of commercial success than are found in the costlier mansions here and there scattered over the land. America now abounds with such moderately sized houses, many of them showing a great deal of really good taste in their construction and embellishments. The excellences of such buildings consist, first, in compact arrangement of the rooms, securing at the same time the greatest possible amount of internal convenience, with the quality of giving to the several apartments such a position as best to command all the desirable points of the situation and aspect.

The second excellence is in such an external management of the plan as to present an exterior of elegant proportion, with a style fully adapted to the scenery, and capable of development in the materials most conveniently used.

Compactness of plan, such as is meant, does not necessarily imply squareness of outline upon the ground—in fact, space may often be sacrificed in such an arrangement—the proper method being to first locate the position of the several rooms, in special reference to the peculiarities of the site, and then arrange the hall and other means of connection in such a manner as economy of space, with convenient access, will point out.

Such houses should always be studied upon the ground, and where that seems to be difficult on account, perhaps, of distance, a gentleman, contemplating building, should furnish the architect he may consult with a rough plan of the site, writing down every circumstance, however trival it may seem, that presents itself. A few words on this may not be out of place, to put the reader in possession of those hints which professional experience has shown me will be valuable in giving instructions by letter, or otherwise, to an architect who may be distant from the spot where it is proposed to erect a small country villa.

Does the ground fall from or towards the road from which the place is entered;—what are the points of compass;—in which direction are the pleasant views;—do high ground, or trees, or neighbors' buildings protect from the quarter from which blow cold winds;—what the nature of the soil;—and what the material;—how is it proposed to supply the building with water? These will suffice for the local directions as to the interior, in

addition to which the personal views of the owner should be given as to mode of living—nature of the several rooms, &c.

Then may be noted down such items as the following, to guide in sketching the exterior. Are there trees immediately near the proposed site;—if so, on which sides :--what kind and of what size are they ;--standing the proper distance from the spot where the building would be, is there any feature in the landscape, such as higher ground or trees, that would be above its probable highest point, so as to form a background, or will the outlines of the house stand out alone and sharp against the sky only; -what is the general character of the scenery about, bold, rocky, well-wooded, farm-like, undulating or level;—are there any very marked features in the landscape in the immediate vicinity of the building-such as lofty rock, or knoll, or grove of trees which will be seen in conjunction with it; -what is the style of the buildings in the neighborhood?

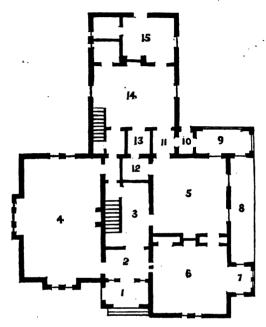
These directions noted and duly conned over, the architect should be asked to send a roughly-drawn plan, consisting of the distribution of the rooms on the principal and chamber floor, which should be taken upon the ground—and the position of each room, and the lookout from each window thoroughly examined there and then, and these plans returned to the professional adviser with such notes as their careful consideration called forth. When the arrangement of the rooms thus became fixed, the expression of the design, and the exterior of the

building should be left entirely to the architect—who, if he be competent, and had taken the pains to impress himself as fully as he should with the ideas of his client, would scarcely fail to give entire satisfaction, and produce a result in harmony with the domestic life of the family, and with the local circumstances.

I would crave, dear reader, your patience yet a little further on what are not entirely personal matters, because they are as interesting to the home-seeker as to my professional brethren and myself. Since the publication of my former volume (Rural Homes) I have repeatedly been written to for professional advice from all parts of the country—and have, in reply, invariably encouraged my correspondent to dot down, however roughly, his own idea of the plan that he wants; and if he be willing to try his patience by so doing, to take a foot rule and make his plan to a scale—say of oneeighth or one-tenth of an inch to the foot, or any other that will serve to give him an accurate idea of the relative proportion of apartments, and the actual size in feet and inches he requires. Such a hint of what is passing in the mind of the client is invaluable to the architect; because the office of the latter, rightly understood, is to translate, into the purest art-language, the unformed ideas of the home-builder, and in so doing to lead the mind of the latter to see what there may have been at fault in his own cruder notions, and to admit and adopt the experienced reasoning of his adviser. Great patience and an enthusiastic love of his art are

necessary to the architect to permit him to do this, and however highly learned he may be in the theories and science of his profession, unless he have the power of throwing himself into the position of his client, and to identify his views and wants with his own, he will never succeed in producing a life-breathing design. The reader will here admit how invaluable to the architect would be the help his client could render, had the latter been himself acquainted somewhat with the science, the aid of which is to be invoked in planning his home. With the help of such hints as I have given, an architect could with advantage be applied to, from any distance, and if personal testimony be worth anything, I can only say that I have designed and directed the erection of a vast number of such country homes which I have never seen, and which, if I may judge from the criticism of others, have been as aptly suited to the scenery and the people, as if they had been planned and superintended during residence in the neighborhood.

The first home design, to illustrate the style of building suitable for the purpose described in this chapter, is of a small Villa, such as would be appropriate for erection in the neighborhood of a country town, as a residence for a family of moderate size, and who to their rural tastes joined the social habits of the city.



PL XIV .- SMALL COUNTRY VILLA-PLAN OF PRINCIPAL FLOOR.

This plan represents a building somewhat irregular in form, yet compelling to no waste of space in its internal arrangements. The principal entrance is made by means of an open porch marked upon the plan, No. 1, which protects the hall door opening into an entry, No. 2, between which and the inner hall, No. 3, is a screen filled with glass and double doors. This hall is nine feet wide. On one side is a large drawing-room, No. 4, which is about thirty feet long and sixteen wide, with projecting bay-windows in the front and upon one side.

Upon the other side of the hall are a dining-room, No. 5, and family parlor or library, No. 6. This latter room has a peculiar feature in the deeply imbayed window, or rather wing, No. 7, which is sufficiently large to make a pleasant little retreat for quiet reading or writing. Its window on one side opens upon a covered terrace, No. 8, the end of which is terminated by a small conservatory, No. 9, a view into which can be obtained from the projecting bay in the parlor.

Connected with the conservatory is an entry, No. 10, which communicates with the domestic offices, and is also a means of exit to the garden.

No. 11 is a passage connecting dining-room and kitchen, provided with shelves, and other conveniences that permit it to be used as a serving-room during meal times.

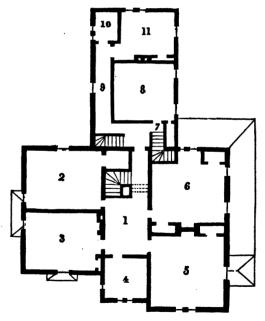
No. 12 is the store and china closet, connected with the dining-room, and 13 is one of similar intention, connecting with the kitchen, having a sliding door between them for passing the contents one from the other. All these useful features for domestic convenience are of ample size.

No. 14 is the kitchen, conveniently near the main body of the house, and yet so shut off, by means of double entries and other separation, as to be no annoyance. This room is sixteen by fourteen. From it leads the servant's stairway, to the floor above, under which is also a flight leading to the cellar below.

No. 15 is the laundry and scullery; connected there-

with is a store closet, and next to it (opening into the kitchen) one for use of the cook. In the laundry is an outside door leading to the yard and stables, a suitable plan for which will be found in the closing section of this chapter.

Underneath the whole of this floor is a cellar seven feet high in the clear, containing vegetable, milk, and store-rooms, as also receptacles for coals, and space for the furnace.



PL XV .-- SMALL COUNTRY VILLA-CHAMBER FLOOR.

The distribution of the space upon the chamber floor

is thus made. No. 1 is the upper hall, lighted by a dome overhead, which is inserted in the attic floor, and illuminated by glass level with the roof, in such a manner as not to be observed from outside the building.

On one side are large chambers, 2 and 3, over the drawing-room; No. 2 being designed for family use, and having connected with it a very large closet.

In front is a smaller room, No. 4, over the entrance porch. No. 5 is over the family sitting-room, and No. 6 is above the dining-room. Each of these rooms has abundant closet provision, as the plan will show.

In the wing of the building, a stairway, No. 7, leads to an attic overhead, the partition inclosing which projects into the chamber, No. 6, and to conform to which, on the other side of its window, a closet of similar size is framed, by which means the symmetry of the chamber is preserved.

No. 8 is a chamber of liberal size, connected with which is a large closet, beside the stairway to attic.

No. 9 is a corridor, leading from the head of the private stairway to a bathing-room, No. 10, and a servant's sleeping-room, No. 11.

In this portion of the building the walls are eight feet high to the top of the plate, the ceilings following up the rake of the rafters so far as to permit a straight ceiling of about ten feet, or even more, in the highest part of the room.

The rooms, in the main part of this building upon the chamber floor, are nine feet high in the clear; the

heights of the rooms below will presently be mentioned, after the external appearance of the building has been briefly described.



PL. XVI.—SMALL COUNTRY VILLA—FRONT ELEVATION.

The elevation of the principal front consists of a gabled projecting portion, forming the main mass of the building, and which is higher than the rest of the edifice. This contains the family-room, dining-room, &c., and has an attic above its chamber floor, lighted in front by a circular-headed window, in the gable-end, and by a similar window in the rear.

On one side of this is seen the elevation of the end of the projecting bay in the library, which is finished with a corner-piece, supporting a pedestal and vase, between which and the wall of the house is a balustrading, forming, if wished, a balcony to the side-window of the room above.

On one side of this portion of the building, and

recessed back just sufficiently not to disturb the prominence of the principal mass, and, at the same time, to permit the projecting cornice of the roof to abut against the side, and not mar the outline of the front by cutting into it, is the porch, with its open arch below, and couplet window above. Receding back from this again, is that portion of the building containing the drawing-room, the prominent feature in which is the projecting bay-window in front.

The roof is covered with tin, laid over rolls, and the cornice is supported by simple brackets.

The elevations of the other sides are finished in similar manner, and the style of the whole is a fair exposition of modern use of Italian models.

In arranging the internal finish, the same remarks made respecting the double villa, in the foregoing chapter, will equally apply here.

The entrance porch, the inner entry, and the conservatory, would appropriately permit the use of encaustic flooring-tiles, and the terrace might be floored with strips of wood of different colors, say black walnut and yellow pine, placed so as to form some geometric pattern, and the whole oiled and varnished.

The large wall spaces in the drawing-room permit an effective mode of decoration, by the use of panels in fitly chosen papers; or the arrangement might be changed, and the room divided into two of either equal or different sizes, without materially altering the general character of the interior of the building.

The height of this room, and that of the hall, diningroom, and library, should be not less than twelve feet, and the rooms in the rear wing may be nine feet high in the clear, as the arrangement of the staircases and passages in the chamber plan permits a difference of level.

The cost of this building would vary according to the prices of the neighborhood where it may be proposed to erect it, and to the material used. It has been built by contract in the vicinity of an eastern town, of frame, filled in with brick, and smooth-ceiled on the exterior—finished substantially and thoroughly for four thousand dollars—which sum would be about an average estimate of the expense of its erection in almost any part of the country.

The situation in which such a villa should be placed, is one that may very commonly be met with. It should stand upon rising ground—with a background either of more elevated land or of trees in its rear—tree shade is somewhat essential for its due effect, and as the plan shows, no provision has been made for its absence in the way of verandas or other protection; but if, in other respects, the plan suited a certain locality, a veranda might be added, either surrounding the drawing-room on each side, or placed against the opposite side of the house, to screen the dining-room and library, the projecting bay being in that case omitted.

The garden grounds about such a villa should be arranged so as to leave the front nearly open. Upon the boundary line nearest the principal road, a screen of

forest trees may interpose, but within these, beyond a dwarf evergreen fence to supply the place of the leafy foliage denuded in winter time, there should be but little to draw the eye from the front of the house. The lawn between the entrance and the outer fence, if of sufficient extent, may be dotted with groups of flowering shrubs and evergreens, and should not be cut up by many walks, only the one avenue leading to the hall door—and, as far away as may be, a walk conducting to the entrance contrived for domestic use. Upon the sides and in the rear, garden-beds may be arranged, and if the lot be large enough, fruit and other trees should be planted between the rear of the house and the stable or other out-door offices.

Upon the road in front, the fence and gates may be of such a character as the extent of line to be so finished would permit. The most appropriate would be formed by a dwarf stone wall, laid in regular courses but not faced, and upon this a wire railing; behind it a bank of earth against the inside of the wall, and in its top a row of Osage Orange, Holly, or other green hedge, or if a belt of evergreens is planted, the forest trees and stone wall will be all-sufficient to protect from the too close scrutiny of the passer by.

In country more wildly featured, and upon land of perhaps abrupt undulations, a villa designed in a different spirit becomes needed. Frequently the building is so placed as to have the principal rooms distributed upon the side opposite to that of the entrance front, the pleasant prospect being from what would otherwise be considered the rear of the house. Thus upon the long slope of a lofty hill, lake, or river bank, a building would naturally have its entrance towards the road above it, and its occupied rooms commanding the pleasant view below. The shores of the Hudson and many inland scenes are so disposed, and the next villa described will be one suited to some such situation as these.

The terraced sides of the bold hills that abound in many of the States, are interlaced with roads leading across them, and which afford means of approach to farms and residences, now upon a higher and then a lower level, as the nature of the land or individual taste may select, so that the line of travel is sometimes in the rear, and at other times in the front of the buildings. The ground immediately about the house, at times settles into a steady flat with abrupt declivities breaking into or falling from it, giving perhaps just sufficient level space to hold the building, and, at other times, the surface continues to present the same uniform fall throughout all its length. Where this latter is the case, the building itself must be planned in varying levels, an arrangement which, if ingeniously contrived, adds frequently to the convenience and roominess of the building at small cost. Where the ground assumes the first-described nature, the building would have nothing

in its treatment to peculiarly distinguish it from others placed upon level plots, excepting in such management of the external character to make it congruous with the landscape.

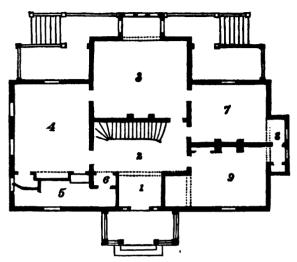
On the bold outline of a hilly slope, above a thickly-grown wood, and far below, the broad surface of the noble Hudson, with a mile or two of stretch, the one from the other, is situated an acre or two, upon which a house-seeker purposes to place his house. Scarcely an hour's ride from New York, and the immediate vicinage of a village of considerable size, require the house to possess many of the requirements of the suburban villa, whilst the means of the owner limits the outlay to a sum but sufficient for a moderate and economic provision of home elegances; so that the most careful allotment of the space becomes essential, while the situation and character of the site forbid an inharmonious design.

A wide and well-kept public road runs above the upward line of the place, and above this road the slope ascends to the woods previously spoken of. There are other roads below, but the means of access to the lot are not so convenient, therefore, and they lie at greater distance, and concealed by the undulation of the land, and by freely-planted trees, from the window of the house. This lot of two acres is intended to furnish all the space required for the house and its belongings, and suggests the following as a convenient arrangement.

The villa should stand at about one-third of the distance of the entire depth of the lot from the public road, and about upon a central line drawn down its length; the entrance gateway should be near one corner of the lot, allowing the drive to curve towards the entrance porch, and thence continue, though not in the same bend, towards the stables, which should be in the other corner of the grounds near to the front line, so that the most valuable space may be devoted as far as possible to the garden and pleasant objects about the building. As these stables would, from their position, be open to the public road, their architectural character and appearance should be carefully attended to, and between them and the house, shrubs, evergreens, and large trees could be grouped to form a concealing screen. A plan of a building containing stables, &c., will be given in the last section of this chapter, which may serve as a hint of what should be contrived for the purpose here—and the accommodation can be readily. reduced to what the family requires, and yet the same general plan be preserved.

The entrance porch being upon the side of the building nearest to the road, and the ground sloping rapidly towards the river, the other front of the building would be considerably elevated from the ground, affording an opportunity for placing the kitchen and other domestic offices in a basement below, and thus secure upon a small ground plan a considerable amount of internal accommodation.

The plan shapes itself as follows: In front is an entrance porch, which may, if wished, be so enlarged



PL XVIL-SMALL VILLA ON THE HUDSON-PLAN OF PRINCIPAL FLOOR.

as to form a carriage porch for vehicles to drive through-Within this is the hall-door, and on either side are windows to light the vestibule. Entering the house is a vestibule, No. 1, nearly square, nine feet in width, opening by an arch, supported upon brackets, into the staircase hall, which is ten feet by twenty, marked 2 upon the plan. In line with the hall is a drawing-room, No. 3, which projects beyond the garden front of the building, and is twenty by sixteen, exclusive of the baywindow, which is five by nine, and from the sides of which, long windows open into a terrace communicating with verandas, and conducting by flights of steps to the level of the lawn below.

On one side of the drawing-room is a dining-room, No. 4, which is eighteen feet by fifteen, having at its one end a recess for sideboard, on one side of which is a dumb-waiter, communicating with the domestic offices below, and on the other a store and china closet. Next to this room is a large, well-lighted store-room and waiter's pantry, No. 5, abundantly provided with closets and shelves, and connecting this with the hall is a closet, No. 6, for hats and coats.

The other side of the plan affords room for a library, No. 7, fifteen feet by thirteen, opening into the drawing-room and hall, and also by a large bay upon the side of the building, No. 8, and which is sufficiently large to make a pleasant nook for reading in the summer, communicating with a bed-room, No. 9. The projecting bay is furnished with a sliding-door, shutting off communication between the rooms when wished, and the portion attached to the bed-room is arranged so as to be used as a small dressing-room, and is provided with a closet.

The bed-room is of about the same size as the library, having, however, a recess attached to it, as is shown upon the plan, affording ample space for a bed, which could be concealed from the room by a curtain drawn within the arch that separates the recess from the room.

All of the windows are to be made with inside sliding shutter blinds, so as to encroach as little as possible upon the wall spaces of the rooms. The drawing-room, bed-room, and library are provided with fireplaces; the dining-room, hall, and entry being dependent for warmth upon furnace heat from below, although, if wished, a fireplace could, without difficulty, be added to the dining-room, and built upon the side next the drawing-room, midway between the doors.

The ground falls in such a manner, as to permit a basement below, the whole of which would be above-ground towards the garden front, and as the grade ascended towards the entrance, the portion excavated would serve for cellar.

Under the drawing-room would be the kitchen, under the library, the laundry; below the projecting bay of the library and chamber would be the porch, steps, and entry to this floor; and behind this, below the bedroom, a store cellar.

Beneath the dining-room, the space would be divided into a light and well-ventilated store-room, a larder, and, under the pantry above, a coal cellar, the slide to which would be on the end of the building, near the corner of the entrance front.

The space between the kitchen and the outer front wall, under the hall and entry, would contain the stairway and the furnace, with store closets, as needed—there being ample room for all.

Under the verandas and terrace a paved area should be formed, and the windows and doors of the office protected from exposure by a screen, so that the grounds immediately about this portion of the building could be neatly kept.

The outside walls of this portion of the building should be of stone—of which, in the situation in my mind, there is abundance upon the ground—their surfaces roughly laid in courses, and, as quickly as care can make them grow, creepers should be trained upon them. The height of this basement would of course depend upon the suddenness of the slope, and upon the nature of the ground to be excavated in front. The ceiling should, however, be not less than eight feet in the clear, for healthful purposes; and there should be drains on each side of the building against the outer walls, by which means they will not conduct dampness into the house.

The chamber accommodation may easily be inferred from the space afforded on the floor below. In addition to the bed-room connected with the library, the plan allows one of the same size, and with similar recess for bed, immediately over—one above the library, a large chamber over the drawing-room, another above the dining-room, and a servant's sleeping-room above the store-room and pantry.

There are also a bath-room and a large linen-closet, one on either side of the entry over the hall, and which are lighted by a central window to the hall, and by one on each side, as represented by the view of the entrance front.

The projecting bay, before spoken of, below is carried

up to this story likewise, affording an opportunity for providing the two bed-rooms connected with it, each one, with a large dressing-closet.

The plan provides ample closet accommodation to all the rooms; and there is, in the upper part of the roof, space for storage, which can be reached by a scuttle from the chamber floor.

The height of this story is eight feet, upon the outside walls, from the floor, and the plastering follows the rise of the roof, so as to permit an extreme height of twelve feet to the flat of the ceiling.

The height of the floor below is eleven feet in the clear.



PL XVIII.-SMALL VILLA ON THE HUDSON-ENTRANCE FRONT.

The view of the entrance front is of a low and unpretending character, in which there is a perfect balance of parts. The style is rather rustic than what can strictly be called Italian, though so far developing the spirit of that style as the material at disposal permitted.

The basement walls, and so much of them as show above-ground on this front, are of stone—the super-structure of the rest of the building being frame, clap-boarded; and the verandas, porch, and other details made to show the nature of the material employed.

The entrance porch is composed of solid posts, chamfered and moulded at the edges, terminating in caps of easily-formed mouldings, supporting brackets which carry the projection of the roof above. Should taste or convenience lead to the preference of a carriage porch, the same general form would serve—the only difference being in the greater projection and consequent size of side opening.

There is a moulded base around the building, projecting sufficiently over the stone-work to protect the bed of the sills that lie upon the top of the walls, the face of the latter finishing to set off about four inches from the line of the clapboarding of the house. This base should be about seven inches high.

The windows upon the lower floor, that show in this front, are embellished and shaded from the sun by canopies supported upon brackets, and have simply formed architrave casings around them, resting upon moulded

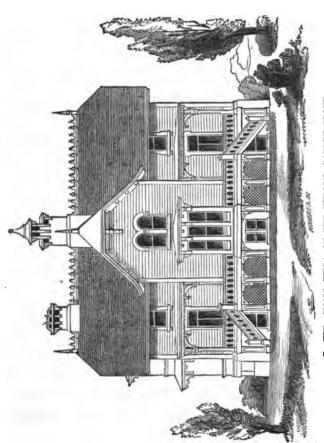
sills carried upon trusses. There is a small bracket at the foot of each casing, abutting upon the sill, as the drawing (though to a small scale) represents.

The roof is broken by three gables. One in the centre, being of large size, and those on either side of it, above the chamber windows, being similar in character, but of smaller dimensions.

The eaves of the roof are curved, the ridge is ornamented by a cresting cut out of plank, and serving to cover the edge of the shingles or tin with which the roof is covered, and the apexes of the gables are trumcated, by which the squareness resulting from the long lines of ridge terminating abruptly in gables is changed to a pleasant melting away of sharp angles, and the whole mass of the building has a more pyramidal form, and appears less high.

There is but little in the architectural finishing of the exterior as seen from this point of view, to give the building a character that would render its erection inappropriate in almost any situation; the appearance of the garden or opposite front is that which gives this villa its special quality of fitness only to such localities as have been described—a view is, therefore, given of this, which will be seen greatly differs in development from the one just presented, although identical in general style.

The central projection of this elevation gives a bold and marked character to the outlines of the building, which, instead of suggesting the idea of one even mass



Pr. XIX.—SMALL VILLA ON THE HUDSON—GARDEN FRONT.

—presents a façade, composed of a principal object and its wings. The central projection becomes the important feature, and the terraces and double steps all balance this, give it base, and add to its dignity. The horizontal lines of the verandas connect this with the sides, and the whole is bound together into a perfectly proportionate and well-balanced assemblage of parts, forming a completed whole.

From the projection in the centre, again a step beyond is made in the bay-window of the drawingroom, and its terraces connected with it, so that seen on any angular point of view the perspective of the building would show the outlines receding by gradation from the ground, a result which appears to me the only correct one to seek in arranging a building upon abruptly falling ground. Upon the entrance front-one step only was sufficient for the relative proportion between the height of the building and the declivity-and that was afforded by its projecting porch; upon the garden front, greater height required breaks more numerous, and hence first the terrace, then the bay, to support the centre projection; and the veranda to break the sides, with the receding slope of the roof, are introduced to complete that pyramidal form which such scenery as surrounds this best finds harmonious.

The finish of the windows, terrace, veranda, and other details, is similar in character to that of the entrance front, and the central gable is hipped back precisely in the same manner.

The chimney shafts are built of brick—the breaks in the height of the tops being corbelled out in the same material, with openings at the sides, and covered on the tops with stone caps.

Should the neighborhood abound with good and easily-worked building-stone, the walls might be built of that material, and no other change made in the finishing but what the difference in the material would naturally point out. These changes would be simply of the casings round the windows, and the substitution, perhaps, of a different style of window to those in the centre of the entrance and garden fronts.

The cost of this structure plainly, but substantially, finished throughout, would not vary greatly from three thousand five hundred dollars, which sum would suffice to erect it in the neighborhood in which the situation described is placed, but in some localities, where materials are much lower, the cost would be less.

Seen as it would be, against a background of wild character, the color of this building should be lively, unless there were many boldly defined rocks around, in which case the tint should be more grey, to avoid too prominent a claim to attention. A chapter devoted to the consideration of various odds and ends that homeseekers and home-finishers are apt to be at a loss about, will find place before this volume is brought to a close, and in it will be given some directions for guiding the painter in the mixing of colors to produce the various tints that different situations and circumstances require.

In scenery abounding in features on less grand a scale, a more rustic character suits the villa. The rich grassy slopes and wood-shade of some of the fertile counties that lie around our large cities, have tempted home-seekers to appropriate some one of the many pleasant spots that railroads and other conveniences of travel have now made of such easy reach, and whilst the accommodation needed, scarcely can be considered to differ from what has been before offered, the want is often expressed of a building combining the cottage and the villa; such a want I now endeavor to meet.

The rustic villa in the country differs from the pleasure cottage, or cottage orné, as it is commonly called, inasmuch as the latter is usually a home of only summer resort, and the former is contrived for family permanency. Its chief charm should be in its careless, but consistent freedom from the trammels of architectural style; it should, in fact, be a building growing, as it were, out of the ground-shaping itself to its inequalities—shooting up here and there as internal convenience manifestly demanded, and jutting out or receding its portions of the plan as taste and a design to secure every local advantage position would afford, in just such manner as the architect might be led to decide. To do this justly in accordance with the immutable laws of propriety is far more difficult than to follow the prescribed rules of architectural design that hem in the boundaries of a recognized style; and yet the simplicity of effect, that adaptation of house and landscape, duly made, can produce in a villa whose characteristics can be classed with no defined style, is, of all others, the most beautiful and rural.

A few years ago, it was the fashion to decry such attempts, on the part of an architect, to marry house and scenery; and ponderous writers crushed the well-meant endeavor by solemn appeals to the bugbear of progress, "precedent," and cited classic examples to show there was no safety in art but by walking crab-fashion. Gwilt, one of the most useful writers on architectural matters, and to whom the profession is indebted for many valuable services, cruelly snubs the man that dares to plead for the beauty and good effect upon art of the study of design to produce such country villas; and—like many others in time past and present-can see no path for us architects but to "do as the Romans did," or, may be, jump backwards into middle-age thinkings and workings. Yet great painters—particularly painters of rural landscape—somehow contrived always to nestle, in its proper place in their compositions, just such a kind of home as the scenery required; and I have found matter for close study in thinking over the marvellous suitableness of the homes shown in the landscapes of Poussin, Claude, and the later artists of the English school; and have felt how little is the chance of satisfactory progress in architectural art, until the professors join to the skillful hand, that can plan and contrive, the eye of the painter. Yet in such pictures the painter but contrived the form, suiting it to other forms around; the architect

has a more deeply studied purpose in view: he must give that form a use. So have I many times amused myself in the Art Galleries of Europe, by revolving in my brain the plan that such buildings must have had to suit both the wants of the inhabitant and the outline that so happily harmonizes with the scenery; and, where the building did so evidently belong to the land-scape, I rarely failed to arrange—very satisfactory to myself, and, I hope, to the ideal owners I conjured up—a scale of accommodation and a convenient arrangement for every portion of the house.

In planning such houses for the present day, we cannot, however, proceed precisely in this manner; that is to say, we cannot first block out the outlines of the building to conform to the scenery, and then proceed to fit a plan to it, and cut up its arrangements so as to reconcile domestic convenience with preconceived external effect; but we can work the two together; and to be able to do this, is the highest reach of training in this direction of the architect's mind. It might be worth while, however, occasionally to try effects as we go along-where the scenery is peculiarly characteristic, and the home-builder anxious to have the building exactly suited thereto; but I doubt if processes so slow would find favor with the rapid and impulsive movements of the age. I remember, when a boy, my father building a small cottage on a peculiarly beautiful spot in a corner of ground that he owned, as a suburban estate, in England; and, after the plan had been duly

discussed and settled, the architect, upon the spot, caused a roughly-framed outline of the building to be put up; and it was looked at from this and the other point of sight, and portions lowered or raised, and projected and recessed, until the contour of the erection seemed to my father and his professional adviser to be exactly what the scenery suggested. So was this frame left for days. and the effect of it (seen, it must be confessed, somewhat still with the eye of faith) studied daily, to the excitement of much impatience in us children, and the perplexity of the neighbors, until every point was happily decided. Soon, however, the perfected building showed the happy result of such study, and, to this day, the architect, now one of England's honored names, points to this little cottage as one of the very happiest coinages of his brain: of course the expense of this was but the waste of a few joists.

The rustic villa is a house with the compact arrangements of the villa, but with less of architectural formality in its style and details. Its rusticity is obtained by the avoidance of all those minutiæ of finish which propinquity to the city places conveniently at hand; by the choice of embellishment, such as the woods or rocks around abundantly afford; and by the perfectly simple and unconcealed character of its construction. When

built of stone or brick, indeed, its decorative details may fitly receive a suburban finish; but this must be done with great care: for instance, its arched porch may be coped and adorned with pedestal and vase; but moulded pilasters, and cap and base to pedestal, must not be there; but, in their stead, the plain pier necessary for abutment of the arch; and for the pedestal supporting the vase, but a continuation of the same, with a boldly projecting tile or stone to cap the one and form a base to the other. So of other such details.

But in wood, the treatment of the rustic villa has but little difficulty to contend against. Frame the building, protect the timbers, and give thickness to its walls by any covering best suited, either clapboards, or smooth ceiling, or plank and batten as you will; give the roofs and eaves, and caps over windows and doors, a bold projection, and let the structure shoot up into just such forms as best give room within, with play of outline without; forget there is a style in designing the cornices, or external features—go to the woods when pillars and posts are wanted, and choose columns of nature's architecture, and, ignoring the existence of city finery, and letting the finish come what it may, so long as all is in keeping, one bit with the other, my word for it, a building will grow out of hand, which shall seem as pleasant to the eye, and as fitting in its place, as the woods and rocks about you.

To do this is not easy. Skillful adaptation of material at command to uses perfectly legitimate, and still re-

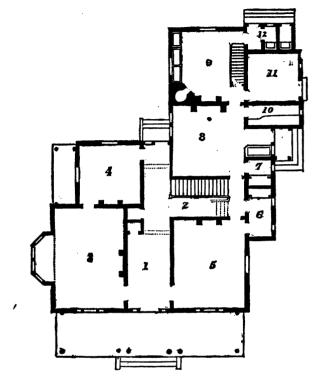
quiring ingenuity and knowledge of effect, and above all an acquaintance with those great principles of truth in design, which, giving vitality and beauty and meaning to all styles, permit the mind that is illumined with them to work out a train of ideas in different forms to what they have been clothed in, by those who have gone before—these are needed, so that where, as one may say, a builder might erect a house in the suburb in any definite style, an architect in very truth must be in request when the provision of a rustic villa is in contemplation.

In a neighboring State, a short drive from a railroad station, is a tract of land, which as it has nothing unusual or difficult to be met with, in its features, may serve as an example of the mode in which similar local requirements may be met in constructing a rustic villa thereon. The surface of the land rises abruptly from the road that skirts its lower boundary, and thence ascends in nearly equal slope to a long stretch of noble woods. The shape of the place, is that of a long narrow strip, and beyond a tree-graced brook on one side, and abundant supply of leafy shade on the other, there is little that a stranger would at first sight remark. But, as the foot makes progress towards the centre of the land, a thousand beauties spring upon the eye; the brook bends in its course, and shoots out into a loop, giving a knoll of fresh verdure, upon which is seen at a glance, how fitly some garden embellishment may be. On turning to look towards the road, the falling

surface of the ground shapes itself at once into a pleasant lawn; and the carriage-road is promptly determined to lead beside the brook, and bending round the knoll, and so, with easy curve, at once to the hall door—the position of which, a few minutes spent in glancing around, is determined to be just so far from the road as to secure from obtrasive observation, and not so high upon the hill as to lose the sheltering background of its rise. In front, is a rich undulation of pasture land, with trees and sparkling water, and in the horizon, the distant hills that chain the neighboring village; in the rear is the wood, and on either side a stretch of the same beautiful landscape that is seen in front, made lively by the roofs and chimney-tops of houses peeping through the trees.

A large house is not needed; an expensive one must not be; and so (still standing on the ground) the position of this room and that is determined, principally, by reference to the out-door loveliness that the windows are to glance upon, and by the aspect, sunny or shady, as occupancy of the rooms during the varying hours of the day best seems to select; and soon positive facts are gleaned, which the architect dots upon paper, and an evening is pleasantly spent in shaping from them the future house.

The rustic villa thus presents itself. The plan of its principal floor gives accommodation sufficient for a family of moderate size, and whose social life is that of friendly hospitality, not of ostentatious display.



PL XX.-RUSTIC VILLA-PLAN OF PRINCIPAL FLOOR.

In front is a long and wide veranda, in the centre of which the roof shoots out to shelter the carriage that may be standing before the entrance door. The hall within is nine feet wide and fourteen long, No. 1, and opens at one end into a large closet, and then, by means of an arch, leads into a staircase hall, No. 2, which turns off at right angles, and then is continued, but of

narrower wiath, to the rear of the house. The staircase hall is eight feet in width, and has in its further end a door leading to the kitchen and offices.

The drawing-room, No. 3, is on one side of the entrance hall, and has at one end a wide window which opens upon the veranda, and on its side a bay-window from which a lovely view is obtained. The size of this room, exclusive of the bay, is twenty-three by fifteen.

Communicating with the drawing-room, but recessed from it, so as to form a veranda to its window, is a small library, No. 4, which is thirteen feet square, containing a fireplace and a recess for a book-case upon its side.

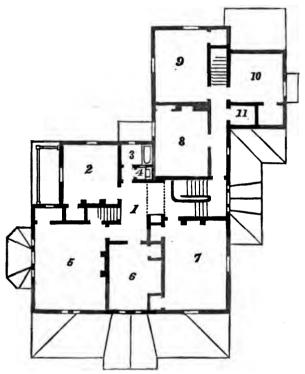
Upon the other side of the hall is a dining-room, No. 5, which is twenty feet by fifteen, having attached to it a large china pantry, No. 6, with an inner closet, and a sash opening into the staircase hall, so that dishes, &c., may be conveniently passed from the kitchen. In the projection containing this pantry is a store-closet, No. 7, communicating with the kitchen, No. 8, which is fifteen feet square in the clear.

By the side of the kitchen, and under the same roof which contains the store and china-closets, is an entry, with ample room for a sink, and opening into the garden by means of a covered porch.

In the rear of the kitchen is the laundry, of the same size, in which are an oven and wash-trays, as also the private staircase to the floor above.

This portion of the plan contains also a larder, No. 10, and a wood-house, with a rear entry from the laundry,

and two necessaries—one for the servants and the other for the use of the family—the doors to which are screened by a covered trellis on a terrace.



PL. XXI.-RUSTIC VILLA-CHAMBER FLOOR.

The accommodation on the chamber floor is ample for the probable wants of the family; and, in addition to the rooms presently described, is space in the roof of the front gable for three good chambers, if so large an increase be considered needful.

The staircase, which is lighted by a large triplet window upon the landing, leads into a central hall, ten feet square, out of which, on one side, opens a chamber, No. 2, immediately over the library, and a bath-room and W.C., 3 and 4.

From this hall a staircase conducts to the attic overhead, and a corridor, opening from which is a large chamber, No. 5, above the drawing-room, and attached to it a dressing-room, with window towards a pleasant balcony, which is formed by the roof over the small veranda to the library below, and which is shaded by the overhanging roof above. This room has also a large closet under the stairway to the attic.

No. 6 is a pleasant bed-room above the entrance hall, which is enlarged by a recess taken out of the next chamber, and which is spacious enough to contain the bed. It has also a large closet.

No. 7 is entered immediately from the staircase hall, and is thirteen feet by twenty. This room has also ample closet accommodation.

From the landing of the staircase a passage leads to the chambers over the kitchen portion of the building, which, as the ceilings are not so high as those of the principal rooms, is upon a lower level.

This passage is three feet six inches wide, and is lighted by a window opening above the roof of the projection below.

On one side is a bed-room, No. 8, which is (excepting the passage space) of the size of the kitchen, and has a closet.

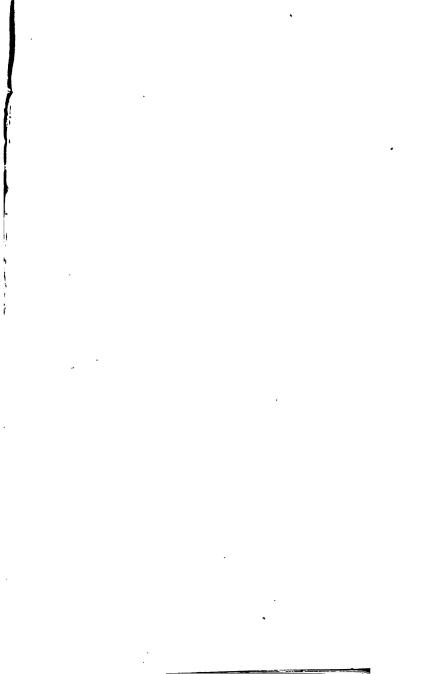
Over the laundry is a chamber of the same size, which has a large closet; and above the wood-house is a chamber, No. 10, to which is also a large closet.

The private stairs conduct to a landing upon this floor, convenient to which, and to the corridor leading from the principal staircase, is a linen-closet, No. 11.

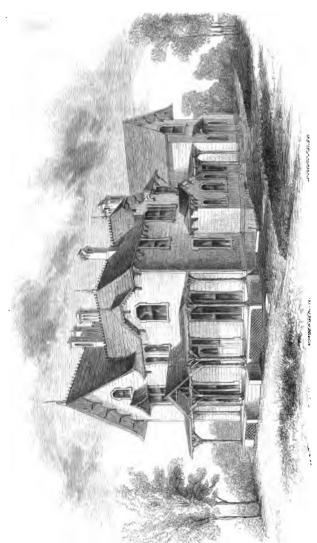
There is additional accommodation, if needed, for servants' sleeping-rooms in the main roof of the front portion of the house, a staircase to which is shown from the hall, No. 1.

The arrangement of both ground and chamber floors shows a liberal supply of all that can conduce to comfort and convenience in living; and as the cellar, seven feet in the clear, extends under the whole building, furnace, store-rooms, root cellar, coals, &c., find ample accommodation therein.

The principal front consists of a roof, containing a large gable above the drawing-room and chamber over, and one of smaller size at the other end. Entirely across the whole front runs a wide veranda, the roof of which is made somewhat more steep than is usually seen, and from the centre of it a gable is broken out, which, as before described, serves as a protection to the steps. The other side embraced in the view given of this villa shows the long line of roof broken in its centre by a hipped gable above the staircase window, and







below this the roof of the projection containing pantry, &c., which has also a small gable shooting from about its centre. In the rear, the projecting wing, with its gabled roof, comprising the wood-house, larder, &c., is seen, and beside it the porch which shelters the door conducting to the kitchen entry.

These roofs are all of steep pitch, and project over the eaves and gables to a depth of three feet, this projecting being curved outwards, and supported upon brackets. The ridges are ornamented by cresting, and the points of the gables by pinnacles, the covering of the roof being tin or shingles as convenience rendered preferable.

The chimney-shafts are of brick, panelled, and the caps and brackets of terra cotta or stone.

The windows, all very simply contrived, vary in their form as situation and convenient size suggested. Above the chamber window in front gable is a canopy, projecting sufficiently to shade the upper portion of the glass, and the overhanging gable at the opposite end has a fringe-like drop fascia, which assists in screening its window. It will be seen that all these features are of the boldest and most matter-of-fact character, and that the rustic air of the building is never marred by too artificial a mode of finish.

The veranda in front, the porch to kitchen entry, the veranda before the library, and the overhanging roof above it (not seen from this point of view), have their roofs supported by rustic posts of cedar or other ever-

green, cut out of the woods, and the bark (permanently attached by copper nails) oiled and varnished. To agree with this mode of finish the cornice or other features of these details are left extremely plain and undemonstrative of any architectural style.

The frame of the building is covered externally, first with rough boarding, and then with smooth sheathing, and the walls are lined with back plastering upon the rough boarding, a mode of building which makes an exceedingly warm and comfortable house in winter, and repels the sun's heat upon the outer surfaces from penetrating the walls in the hot season.

Within, the walls are all plastered and finished for papering, the floors deafened, and the ends of the joists and flooring beams, where abutting upon the cellar walls, are filled in between with brick and cement, so as to prevent rats and other intruders from colonizing the spaces between the walls.

The finish internally is very plain, the effect being left to the pleasant coloring of papered walls and cheerful furnishing.

The coloring of the building externally should be influenced greatly by the circumstances described of local scenery and situation. Seen as the villa will be in juxtaposition with trees, and against a background of foliage and verdure, the tint should be lively, without being too brilliant. A color approaching somewhat to what would be made by mixing a tea-spoonful of strong coffee in a cup of cream (to use a domestic illustration),

would be very suitable, particularly as such a hue would accord with the tone of coloring produced by the rustic wood-work around the porches and verandas. To further make manifest the connection in tint of these portions of the building with the main mass, the brackets, window-casings, canopies, and cornices may be colored a darker tint, so as to approach the shade of the rustic wood-work. This must be done, however, with care, avoiding too powerful a contrast.

If the roofs be tinned, and their surface painted, a cool grey, something between the color of the house and lead color will be fitting, and the cresting upon the ridge should be the same color with the other woodwork of the house.

The chimney shafts should be the local color of the building, the caps and brackets retaining the natural hue of the material.

The cost of this building by a contract made for its erection, at Orange; New Jersey, is four thousand seven hundred dollars, and the execution of the work is in the best and most substantial manner. This amount will serve as a guide to estimate the cost of such a villa in other States; and as one comprising very many conveniences at small cost, this building is offered as a fair example of a rustic villa, suited to such a site as has been previously described.

A peculiarity in the arrangement of this building is, that wood-house, necessaries, and all other useful adjuncts, are provided in one erection, and there is no side of the exterior, of which the view would be unsightly. Conveniently near, the stables and stable-yard should be planned, and between these and the rear end of the building, the kitchen garden would conveniently be placed, leaving the front and either side clear for lawn and pleasure gardens.

In arranging the grounds, all the natural features of the place should be taken advantage of, and the outer fences and gates should either be framed of timber, and the construction not concealed, or they may be of rustic* work from the woods, made in the same manner as the supports of the verandas and porch. In a chapter in the close of this little volume, some examples of out door belongings will be given, from which selections may advantageously be made.

In conclusion, the small villa near a city, or in the country, will owe its chief excellence and beauty to its honest obtainment of effect. This can only be done by sedulous denial of all merely extraneous ornamentation, by the thought, that first of all, the house must be achieved, and that no finery of outside effect compensates for one atom of comfort sacrificed within. All parts of a building, if evidently necessary and fitly arranged, have that inherent quality resulting from propriety, that they cannot fail to produce a certain beauty;

and if elaboration of details and ornamentation of construction are not permitted to the architect, he can still thank those unswerving laws that regulate the beauty of fitness, for endowing his structure with a homely loveliness, which no want of ornament can take away. The most matter of fact things have, in their sincerity of treatment, a beauty of their own, and become, as it were, gold in the hands of the skillful architect, who can work with them to a perfection of result, which the finest finish and most exquisite decoration will fail to produce when not bestowed upon a first fitly apportioned plan.

Yet is this attention, first to absolute perfection of convenience commensurate with the size, cost, and situation of the house, in no way urged by me as all that is sufficient. Elegance and usefulness must be combined. but it is so true that they only result in beauty when combined, that all the stress that can be laid upon the necessity of admitting no charm to be legitimately claimed for a building, unless its first impression is one of honest adaptation of plan to domestic life of the owner, and of exterior to material and situation, I would impress upon all who contemplate building, or would have a guide to judge of villas now erected. The custom of the day being to extravagantly embellish all that may show length of purse of the indweller, there is no fear that there will be undue parsimony in decorating such buildings; but it is to be regretted that not many of them show tasteful working of a consistent plan on the part of the owners. True, there are costly carpets, lace curtains and gilding, joined however, too often to garish coloring, bare white walls and routine furniture—one room the counterpart of that of one's neighbor; no keeping in the selections of either the separate pieces of furniture, or in their congruity with carpets and walls. The front parlor is crimson and rosewood, with a great straggling pattern in gay colors upon the carpet; and the rear parlor is blue and rosewood, and carpet perhaps the same. Meanwhile, the walls are white with now and then a staring picture in a gaudy frame, with cords and tassels more prominent than the picture—and all such violations of the beauty of simplicity and of artistic taste vindicated by the declaration that the rooms were "done" by a fashionable upholsterer.

Centuries ago, the people of Greece were accustomed to erect in the small court-yard invariably in front of their private houses, a bust, or statue of the God Apollo, the mythic representative of lively art, the joyous and youthful patron of music, eloquence and poetry; this to be a constant teaching of the usefulness of cultivating acquaintance in their daily going out and coming in, with the softening and elevating influences of material beauty. Would it not be well in our day to metaphorically erect a statue of Apollo in the court-yard?

In early days the Cross was planted before the doors of many Christian homes; and its teachings were still the same; for the holy emblem was invariably made "a thing of beauty," breathing strains of hope, not groans

of gloom. Shall not our court-yards be in spirit so adorned?

In present times, a custom is to plant sweetly-smelling and cheerful-looking flowers before the house door; these may teach the lessons of older times, as told by Apollo and by Christian emblem-may show that where thrift and carefulness reign may shine a cheerful joy-and that thoughts only of the animal life, refusal to be joyous, constant care, are not required by The Book upon the table, that takes the place of the heathen god in the court-yard. Our deeper consolation, purer teaching, higher aims, than those of the darkened Greek, should show recognition in the evidence of grateful appreciation of the beauties found so lavishly around us; the added comforts and superior conveniences of our homes to those of our Christian forefathers, should make us strive to emulate in our works the spirit which gives to those of our Father a beauty and a use.

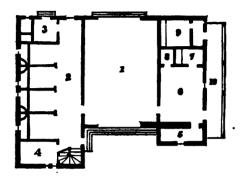
The out-buildings belonging to suburban or country villas should partake of the same character as the house itself. In some cases such buildings are connected with the villa, forming a wing upon the one side, balanced frequently by a conservatory or other feature upon the other. The objection, however, of too near neighborhood, does not permit such an arrangement to be com-

mon; and when seen, such a grouping of the villa and its belongings usually is found in the suburb, rather than in the open country.

The out-buildings usually needed are a stable for one horse or more, a smaller one possibly for a cow, a carriage-house and harness-room, a loft for hay and grain, a wood-house, knife-house, occasionally an ice-house, and the slop-sink, and necessaries for the family and servants. These buildings may either be all under one roof, or they may be in separate buildings, conveniently dotted about the place. The ice-house is not frequently required in the suburb, families generally preferring a daily or weekly supply delivered at the door, and which is kept in an ice-closet or refrigerator. When such a building is, however, demanded, the mode of its erection will be found detailed in a subsequent portion of this volume.

Much space might be profitably occupied in enlarging upon the proper modes of erecting and arranging the stable and other adjuncts of the house; but the scope of this present volume will only permit a few general remarks, illustrated by a design suitable, in its provision of accommodation, for any one of the villas in this book.

This plan comprises a stable for four horses, with a large harness-room, and a stall for a cow, a carriage-house, a knife-room, wood-house, servants' sink, necessaries, and a covered walk leading to them. The building accommodates all these portions under one roof, and



PL XXIII.—STABLE, AND OTHER OUTBUILDINGS—GROUND PLAN.

the outlines so shape themselves as readily to permit almost any expression of style which congruity with the villa itself might suggest.

The space is arranged as follows:

No. 1 is a carriage-house, with sliding door in front, and with other doors in the rear, so as to permit, if occasion require, a vehicle to be driven through into the manure and cow-yard beyond.

No. 2 is the horse-stable, divided into four stalls, each one of them ventilated by an air-flue constructed in the walls and leading into an open ventilator upon the roof. Windows are likewise provided, and these should be built close under the ceiling, and supposing the height of the stable to be eleven or twelve feet, should be eighteen inches or two feet deep.

No. 3 is a cow-stable, partitioned off from the rest, and having a door and window opening into the rear yard. At this end of the building is a door for the removal of manure.

No. 4 is the man's room, with hooks for the harness, and next to it is a stairway leading to the floor above; a closet connected with the harness-room being left underneath.

Upon the other side of the building, formed by the partition necessary for the reception of the sliding-door of the carriage-house, is a knife-room, No. 5, or if not so required to be used, there might be constructed in its stead an ice-room, partly sunk below the ground and partly above.

No. 6 is a large wood-house, the door to which is from a covered walk, No. 10, which is screened from view by an ornamental trellis upon the side, over which vines or other creepers could be trained. No. 7 is a necessary for the use of servants, No. 8 a sink, and 9 a room of similar use as No. 7, the entrance to which is made private by a double partition, the outer door not opening at the same point as that within.

The height of the portion of the building upon this side need not be more than nine or ten feet upon this floor, and a step or two down can be left upon the floor above, so as to gain additional room overhead for the storing of hay or other feed.

The floor above might be arranged as follows:

In front, directly over the harness-room, might be a pleasant sleeping-room for the man, which room could be warmed by a small stove in the harness-room, sur-

rounded by brickwork, and a drum and smoke-pipe crossing the upper room, and discharging into the ventilator before alluded to. Or, if the outer walls of the stable were made of brick, a flue could be left in them, and a chimney cap be added above the roof.

The rest of the space could be partitioned as circumstances required, a feed-room being framed at one end, and a shaft conducting from it should open into the stable below, either about the centre of the wall between carriage-house and stable, or at a point nearer to the door.



PL XXIV.—STABLE AND OUTBUILDINGS—ELEVATION.

The external appearance of the building is produced by the simplest possible treatment of the forms that the construction of the plan required. On one side is a gable, terminating the horse-stable and the loft above, in the centre is the recessed portion, containing the carriage house, and upon the other side is the narrower and lower gable that roofs the wood-house, &c. The doors of the carriage-house are in the centre, and a rising slope is formed to the level of its floor, so as to avoid an abrupt step. Above these doors is a protecting roof, which connects the two projecting wings of the building, and under which carriages or horses could be cleaned. This roof should serve also the purpose of conveniently assisting the unloading of hay, and its reception in the loft above, to do which it would need to be made of not too steep a pitch, and strongly framed, so as to bear the weight of a man to help unloading the hay-wagon below. The door into the loft opens on to this roof, and is in a line with that of the carriage-house below.

Where the ridge of the roof over the central loft intersects the ridge of the stable roof, is a square ventilator of considerable size, open to the ceiling below, and protected by a wire gauze stretched across its mouth, to keep dust and hay from penetrating to the stable. Its outer sides are filled with weather-boards, and its roof is terminated in a vane.

The roofs project, and are carried upon simple brackets, and the windows are set in architrave casings.

The style is Italian, but, as before said, the plan permits selection of rustic or pointed, as the building that it belongs to may require.

The material also may be whatever is most conveniently to be obtained; the roofs are of tin (or slate), and the windows should be protected with ornamental wire net-work.

The accommodation could be increased or diminished at pleasure, the general dimensions of the plan as thus represented being twenty-five by nineteen feet for the carriage-house, thirty-two by sixteen for the stable, including harness-room and stall for cow, and twenty-eight by twelve for the wood-house and apartments attached thereto. The cost would vary in proportion to the amount of internal and external finish—and would be from fifteen hundred to two thousand dollars.

Similar buildings, grouping together under one roof the adjuncts to the house, might be contrived at far less expense, the present plan admitting considerable reduction, if a smaller amount of accommodation would suffice.

CHAPTER IV.

THE SUBURBAN AND COUNTRY VILLA OF LARGER SIZE.

THE home of perfect comfort—the satisfied attainment of all that is elegant and cosy—is the spacious modern villa. Borrowing, at one time, from the country house, now from the city mansion, and mixing snugness with splendor, in a manner peculiarly its own, and not to be brought about in either the former or the latterthe absolute perfection of a habitation can be attained for a moderately-minded gentleman in such a villa. Nor do ladies find their own requirements less sedulously administered; for, what city house can give so light and cheerful and so retired a little "own-room?" What country-house bed-rooms so every way comfortable, and conservatory so easily reached, and so conveniently to be enjoyed? What drawing-rooms have the airy elegance, and the appearance of lady habitancy, of those of the villa; and, in fact, in what other form can metropolitan convenience be enjoyed with country airiness and space? The counterpart of the wish of Horace can thus be met in these our days, and the richest partygiver can find the walls of a properly-contrived villa as expansive at least as those of the homes of "upperten-dom" in the city!

This especially of the *suburban* villa, which is the convenient city house, grown healthy by sojourn in the country—its slender height dwarfed down to better based proportions and its sides expanded to a most respectable fullness.

The smallest space suitable for the site of a properly developed suburban villa is an oblong of fifty or sixty feet by eighty. This will allow a building to be planned so as to contain rooms of proper proportions and of ample size upon the ground floor, with kitchens and other domestic offices beneath, and a sufficiency of chamber accommodations in the floor above the principal rooms—servants' bed-rooms being provided probably in an attic over the whole or portions of the second floor.

The ground upon which it should stand should be raised towards the building, so that the domestic offices in the basement need not actually be much below the natural surface, and this lower story should, under all circumstances, be protected by a dry drain around its outer walls. Upon falling ground, where the descent gives opportunity of drainage from the very lowest level of the cellar, the basement may be sunk more deeply in the ground; or upon soil of such a nature as will not permit a sub-cellar to be excavated under any

portion of the basement, the floor of the offices should be, in all cases, above the drainage level, and the intervening space between it and the surface of the excavation should be filled in with loose stones abundantly intersected with drains.

No consideration is so important as the proper provision, in the very first start, of a thorough drainage—no doubt must be had upon this; but levels taken, and a system laid down that will be certain in its operation, or farewell to all hopes of comfort in the house. Considerations of economy should lead also to fullest attention to this matter; for no agent more rapidly works destruction to the walls, and, through them, to every portion of the building, than the insidious absorption of water. Not only is the cellar damp, and the lower portion of the house unwholesome, but the gases generated below become commingled with the air above, and the atmosphere of the rooms is close and heavy in summer. and exceedingly difficult to be warmed in winter. to secure a perfect house, begin at the foundation; and, in buying one already built, let the longest and most careful examination of any one of its floors be devoted to the cellar—the outside you can take in at a glance; the general arrangement of the rooms is easily understood, and, if not in every respect conformable to your own ideas, can perhaps be altered; but the cellar, if damp, will require almost a life-lease to make wholesome, if even the cause be removed—for the materials will so have absorbed moisture as to be years in becoming thoroughly

rid of its deleterious effects. The state of atmosphere in a cellar, fortunately, however, impresses itself instantly upon the senses, and a delicate organization will detect at once, upon going into it, the evils that dampness and imperfect drainage or ventilation cause, whilst a careful examination soon shows in the color of masonry, the feeling to the hand, and to the foot, the dryness or saturation of the walls.

In building such a villa, after the walls have been properly constructed and drainage effectually secured, the ventilation of the basement and sub-cellar should be carefully thought out. When a furnace is used, there is no difficulty whatever in perfectly accomplishing this object; and in the absence of this, or in summer, when heating apparatus is not in use, the kitchen-range may be brought into requisition to aid in effecting an upward draught, such as shall serve to free, by means of proper flues, the building of impure air. Every year this subject is receiving increased attention, and owners are sensible of the importance of consulting a competent authority, and of providing the means of ventilating, which can now be done in ordinary buildings at an almost inappreciable expense. There is much empiricism connected with this science, and many a man gives a large additional price for a house that a speculating builder assures him is "ventilated," when the only evidence he has of it is in the provision of certain plated or enamelled registers, embellished with fanciful cords and tassels, but which (I speak knowingly), in nine cases out of ten, open only into flues left in a twelve-inch wall, and, having no motive power connected with them to supply the upward draft, are utterly useless.

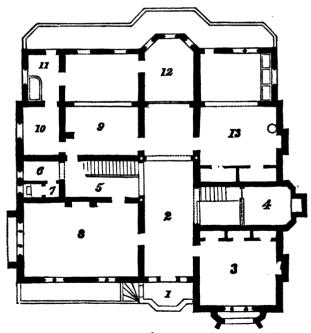
A very simple, and in not too large a building, entirely sufficient mode of ventilation can be obtained by the summer use of the furnace in the following manner. The registers which in winter convey the hot air into the rooms, should always open into the apartments at points opposite to the fireplaces, the flues of which should never be closed, winter or summer. If these flues are built near to the flue connected with the kitchen range, there will at all times be a sufficient amount of radiated heat communicated to their surfaces, to give motion to the columns of air within the chimney, and hence, if the registers in the rooms be always opened, and the valve in the air-box of the furnace also be unclosed, there will naturally be a constant flow of pure air through the furnace—up the air-pipes, and thence circulating in the rooms and escaping up the chimney. In the cellar of the house in which I live, I have one of Chilson's furnaces (now manufactured with many improvements by Richardson and Boynton, Broadway, New York), and the rooms are so arranged as to permit the mode of ventilation above described. During the very hottest weather of last summer there was, at all times, a sufficient circulation of the air and an upward draft through the chimneys strong enough to carry light paper out upon the roof.

In the villa, however, where rooms are less closely

brought together, other ventiducts should be provided, the simplest and most effective being found in the insertion of tin tubing—either cylindrical or rectangular, as convenience best permits, in the partitions, with registers opening into the room near the floor, and also near the ceiling. These tubes must be made to discharge into a ventilating shaft above the roof, in the manner that will be found described in the enumeration of the features of the suburban villa presently offered.

The suburb frequently offers a pleasant site for a house, which in the front and rear has aspects every way agreeable, but which, either on account of the narrowness of the lot, or of the propinquity of adjoining buildings, does not give the same advantage upon the sides. A villa designed in such a situation, has therefore many difficulties to contend against in the suitable distribution of its rooms, but as such difficulties are constantly presenting, the first design selected to illustrate this chapter, is of a building so placed. It is intended for the residence of a family of moderate wealth, near a city, and to be built of substantial material. The style chosen is the Gothic, as affording an opportunity of practically illustrating the manner in which the peculiarities of that style may honestly be developed in modern architecture, and as the various portions of the building will serve as examples for general guidance, the reader is asked patiently to follow the somewhat full description of the illustrations.

The building is supposed to be at a moderate distance from the public road, upon slightly rising ground, and, although not occupying the entire width of the lot, so situated as to render windows other than to secondary portions of the interior not desirable upon the sides.



PL XXV.—SUBURBAN GOTHIC VILLA—BASEMENT PLAN.

Commencing with the foundations, the arrangement

of the basement plan is thus made. The building has a frontage of about fifty-seven feet, exclusive of some small projections which the plan represents, and if placed upon an area of three usual lots, or seventy-five feet frontage, and running back from one hundred and fifty to two hundred feet, or as many more as may be procurable, there would be upon the sides ample room for a road to the stable upon one, and an air space upon the other.

The basement is eight feet high in the clear within the walls, and the ground in front is so graded as to make the outside walls to be five feet high above the ground level. On the rear the grade is changed and the level of the basement floor is one step or more above the surface of the soil. Below the basement, the walls are carried down, wholly, or in portions, as the nature of the ground may permit, so as to form a sub-cellar six feet six inches high in the clear, and the walls rest upon a solid bed of thick stones projecting six inches within and without the foundation walls, and sunk at least eighteen inches below the floor of sub-cellar.

Around the foundation walls an air drain is built, and areas with gratings are provided to give light and air to the cellar.

The grade of the ground is such as to permit the earth to fall away in front towards the road, and also from the rear of the house which thus stands as it were upon a ridge. In the rear of the garden, the stables and outbuildings, such as are not provided in the house, may naturally be supposed to be erected, and connected with these, a large cesspool should be constructed into which all the drains of the house may lead.

The water arrangements of the villa would, of course, very much vary in different localities. We will suppose that in this case the owner is entirely dependent upon what he can collect from his roofs, and upon a well in the yard. Two large cisterns should accordingly be supplied, so built as that between them may be one of much smaller size for filtration, connected with the cistern on either side, and from which the pipes that supply the building should be drawn. In addition to this should be a tank in the roof—so placed as to permit the water from the eaves to discharge into it, and its overflow to run into the cisterns below, to be thence returned in case of lack of water in the tank, by means of a force-pump, so as to secure constant supply of water to feed the boiler and the other water-works. arrangements affect the construction of the walls and the basement only so far as to secure the proper protec tion from frost of all waste and supply pipes, and the provision of the proper openings for their admission. The allotment of the several portions of the basement -these matters having been attended to, is as follows: No. 1 is a porch, to which are stone steps from without, and on the level of which is an area. Inside the porch is the basement door, and a wide window on each side. No. 2 is the hall, which is ten feet wide, and runs nearly through the building. On one side is a room, No. 3,

about sixteen feet square, and well stored with lock-up cupboards and shelves, for the use of the housekeeper, forming both a store-room and basement sitting-room, the height of the story making it perfectly suitable for pleasant occupancy.

No. 4 is reserved for the furnace, and is sunk down to the depth of the cellar below, and inclosed with an iron railing and stairway. In this is also accommodation for coal, and a shoot is constructed, opening level with the passage-way on the side of the house, which communicates with the receptacle above described, which would be reserved for furnace coal, and also with a large coal vault under the laundry, for general use of the house.

At right angles to the entrance hall is that containing the staircase, No. 5, which is eight feet wide, and is lighted by a window in the passage, No. 6, in which is a water-closet, No. 7, for the use of this floor. The situation of this is such as to be no annoyance to any part of the house, as it is entirely isolated, is surrounded by brick walls, has a window opening into the outer air, and can be ventilated by means of a shaft, communicating with the chimney flues immediately beside it.

In front, with large windows upon one side towards the area, and with one of ample width at the end, is a billiard-room, No. 8, which is twenty-four by sixteen feet. In one corner is a triangular space for a washbasin, &c.—and in the other a similar space partitioned off to form a closet for cues. Should the owner not

wish to so appropriate this room, the airiness of its situation would fit it for almost any family purpose that convenience might suggest, or the gentleman of the household would find in it an excellently lighted and pleasant business room or office.

Upon the other side of the staircase hall is the kitchen, No. 9, which, as will be better seen when the upper floors are examined, partly extends under a projection from the main building, and is about fifteen by twenty-three feet in the clear. In the rear of this is a large and well-lighted store-room, No. 10, and next to it, and communicating with the kitchen, is a scullery and sink. The scullery has a rear door, with a paved area under the balcony above, and is eight feet wide by ten long.

At the rear end of the entrance hall is a large larder, No. 12, which projects in the manner shown upon the plan. To assist in securing efficient ventilation there is a wire gauze screen upon its straight side, and in addition to this and to the windows in the octagonal end, there are ventilating flues carried up in the walls, as a glance at the upper plans will show.

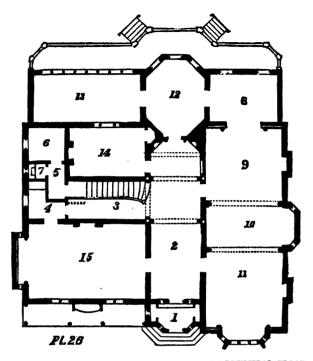
No. 13 is a laundry, which, exclusive of the closets attached to it, is of the same size as the kitchen. The wash trays are conveniently provided for in the projecting portion, which extends under the addition to the main part of the house upon the principal floor overhead. A large closet is partitioned off at the end opposite the window for use from this room, and one of

nearly the same size is left from the entrance hall. In the laundry is a place for range and boiler, which would occupy but little space in the room—the plan showing that the fireplaces on this side of the building are projected out from the walls.

The thickness of the outer walls of this story should be from twenty inches to two feet, according to the quality of the building-stone used, and the walls resting upon these should be fourteen inches, placed upon the centre of the walls below, so that there may be support on the outer face of the basement walls, for the stone base course and water-table, and upon the inner face for the flooring-beams and joists. The inner walls of the basement are of brick, and are designed to be twelve inches in thickness. The external walls above are made fourteen inches thick, so as to allow them to be built hollow, an eight inch wall without, a four inch wall within, and a space of two inches between, bound together by headers passing through at intervals, and still not coming in contact at either end with the inside plastering or outer surface, thus effectually preventing the transmission of dampness, and making a stronger wall than one built solid in the usual manner.

Above the basement is the principal floor, which is divided in the following manner:

The entrance porch (No. 1) projects from the central portion of the building, and is sheltered by the wing, which stands forward at the side. The corners of the porch are cut off, so as to give greater depth, without



PL XXVI.—SUBURBAN GOTHIC VILLA—PLAN OF PRINCIPAL FLOOR.

interfering with the projection of the wing. There are small arch-headed windows in each of the diagonal sides, and one of larger size in the wall towards the veranda. Within the porch are recesses right and left for the reception of a stand for wet umbrellas, overshoes, &c., upon one side, and for hats and coats upon the other, the porch being inclosed by a door in front, and by inner sash-doors leading to the hall. In front of the

inner doors are two broad steps, so as to reduce the height of the ascent before the outer entrance.

On each side of the inner doors is an arch-headed window, filled with stained glass, and within the doors is the entrance hall, No. 2, which is ten feet wide, and runs nearly the entire depth of the house. Rather more than midway, the staircase hall, No. 3, leads from it at right angles, and the intersection is marked by arches forming overhead a groined ceiling, from which a pendent lamp would sufficiently illuminate each portion of the halls. The corners from which the arches spring are cased out in a manner appropriate to the style, and serve to contain four ventilating flues, the use of which will be presently explained. The staircase hall is eight feet six inches in width, and contains the principal stairway to the chamber floor above, under which is a flight leading to the hall below.

At the end of the staircase hall is a serving-room or waiters' pantry, No. 4, well lighted and conveniently placed in relation to the dining-room, which is next to it; it connects with the offices by means of a dumb-waiter, which is framed in the recess shown upon the plan. No. 5 is a private vestibule, leading to a large store closet, No. 6, which is eight feet by seven, and in this passage is a convenient and retired nook for the water-closet upon this floor, No. 7.

Returning to the principal hall, upon one side in the projecting wing is a suite of rooms, 8, 9, 10, and 11,

consisting of drawing-rooms and extension-room, thus arranged:

In front is a drawing-room, sixteen feet wide by eighteen deep, with a large bay-window in the end, and upon one side a fireplace, which, projecting outwards beyond the walls, does not curtail the dimensions of the apartment. In the rear of this is a middle drawingroom or saloon, which projects beyond the outer walls at its end; this projection forming in the room an arrangement somewhat like that of a bay-window, excepting that light is only admitted by narrow windows in the angular sides. The intention of this arrangement is to furnish an admirable position for a large picture, or for a mirror upon the wall space thus afforded, a plan which the tasteful eye will at once see gives an opportunity for a beautiful and novel effect. This room is only divided by an arch on each side from the front drawing-room, and from that in the rear, and is about twelve feet deep.

In the rear of this is an apartment of the same size as the front drawing-room, with the exception of the baywindow. The end wall has sliding glass doors, as shown upon the plan, which, when open, prolong the suite of rooms to an extension in the rear, which is twelve feet deep, and runs across the entire rear of the building.

Of this extended portion of the house, No. 11 communicates with the sliding-doors just described; No. 12 is an octagonal boudoir, entrance from which is made

from the principal hall; and 18 is a large conservatory. The remainder of the plan exhibits a library, No. 14, the window of which opens into the conservatory, and connected with it is a fireproof safe closet, formed out of the angle left by the octagonal plan of the boudoir.

The dining-room, No. 15, is immediately in front, and has its wide windows opening into a pleasant veranda. This room is twenty-four feet long by sixteen feet wide in the clear, and has at the end a recess for the side-board, two feet four inches deep, in the sides of which are narrow slips filled with glass to throw light into the recess and give illumination, if wished, to a picture upon its end wall, for which the situation would be very suitable, and the space above the sideboard well filled up by such embellishment.

The height of this floor, excepting of that portion comprising 4, 5, 6, and 7, is thirteen feet in the clear, and the height of the exceptions made is ten feet. The internal finish required to fitly carry out the style of the building may be conceived to be arranged in the following manner:

The floor of the entrance porch should consist of encaustic tiles, laid in an appropriate pattern—an infinite variety of which can be obtained of English manufacture from the agents of the patentee in New York and other metropolitan cities. The sides should be wainscoated in oak, black walnut, or in pine stained and varnished, and the roof overhead panelled in the same material.

The inner hall may be embellished by a wainscoting of hard wood, three feet high, divided into narrow panels, and the wall above painted or papered. The ceiling, instead of being flat, may have a moulded rib along its centre, and the surface sloping downwards on either side, so as to make the height upon the walls about six inches less than to the highest point. The cornice should be so contrived as to mitre easily with other ribs running across the ceiling at right angles, and intersecting with that in the ridge. The arches, and groined and vaulted ceilings, that the plan shows to be portions of the decorative and constructive design of this story, will require drawings, to represent which the limits of this book render inconvenient to offer; and, as the reader would hardly venture to be his own architect to such a house, it is only sufficient to say that these features are appropriately introduced in this instance, and can therefore be made legitimately instrumental in giving beauty to the interior of the building.

At the end of the hall are niches for the depositing of such articles of substantial or elegant embellishment as the taste of the owner may select.

The drawing-rooms should be left as quietly simple, with regard to architectural ornamentation, as possible—nothing being in worse taste than the overladen ornament of, so called, Gothic rooms, in which the ceilings, cornices, and door and window casings are so heavy and clumsy as justly to disgust many with a style that seems to permit absurdities so monstrous. The bay-win-

dow of the front room should have the opening towards the room arched; and, as the shutters or blinds are contrived to slide into the walls, this arch will permit a pretty arrangement of the window draperies, and save some outlay in expensive cornice and lambrequin.

At the other end of the rooms, the arch leading into the extension should be of similar form and finish. An arch should also be sprung over the projecting bay in the side of the rooms, and a sunk panel, the head of it finished with an arch of same outline, should be made in the wall opposite.

The boudoir may appropriately receive a more ornamental finish; and, as the room is entirely without the building, its ceiling may be of greater height, and, if lady-taste requires, may be groined and embellished in the richest possible manner—provided the ornamentation be light, and the details all of consistent scale and design. A brilliant writer and most accomplished Southern architect, Cary Long (now dead), used to write in his "Architectonics," in the Literary World, that a certain fashionable church architect was very uncertain in the scale of his details, so that, "with him, it was sometimes Go-thick, and sometimes Go-thin: for you shall see in the same building a foliated boss, as big as a cart-wheel, stuck on where it does nothing, and a carved bracket, supporting perhaps half a ton of dead weight, whipped out of two-inch stuff." To quote once more: another writer says: "The introduction of stucco has been the ruin of correct Gothic;" and, perhaps, now it is an open

question whether, in detailing the embellishment of a villa in such a style, it were not safer for the architect to trust in no way to this material and mode of decoration; at all events, until the plaster-decorators have purer models for their cast-work—it would be better to trust to simple mouldings rather than to the exaggerated foliage and vulgar ornamentation now so much the rage.

To illustrate my meaning, I will endeavor, so far as words permit, to describe the mode of finish I would prefer for the boudoir now under discussion.

The form of the room is a long octagon, and supposing the ceiling to be arched overhead, and where the angles break the regular line, to be hipped back towards the apex of the ceiling in a curve concentric with that of the main arch—a vaulted ceiling would be formed, which would be both the natural form that such construction results in, and also one susceptible of exceeding beauty in finishing. The width of this little room is twelve feet, or two feet more than that of the hall, the outer walls overreaching one foot on each side upon the other portions of the extension; this width would require a rise in the ceiling of about one fourth, which would be three feet, and if the whole height of the story be made fifteen feet, the line of cornice may be made to range with that of the extension room and drawingrooms. The angle made by the meeting of the sides forming the vaulted ceiling, may be filled by a small moulded bead, decorated or not as preferred, and the panel on the ceiling formed by the abutment of the curved lines upon the flat, should be surrounded by a similar beading. The dotted lines upon the illustration may serve to give some idea of the plan of the ceiling, the curve of the arch being what is technically called Tudor.

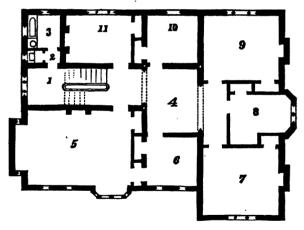
The cornice moulded, and of but few members, should be about fourteen inches deep upon the walls, and should project about six inches at the top, forming a shelf, upon which the beading before described in the angles of the vaulting would rest, and in front of this, a canopy of decorated pinnacles should surround the room, and cap the cornice. The top of the cornice should slope downward so that the dust would not accumulate, and the ornamental pinnacles might fittingly take the form of the fleur-de-lys, or any other simple architecural embellishment. The panel of the ceiling enriched with a centre, and the whole effect aided by careful use of color, would at very little expense allow the owner to ornament the ceiling of this boudoir in an elegant, truthful, and simple manner.

Below the cornice may be an ornamented band of arches about eight inches apart, springing from small corbels; these will serve to break the stiffness of the horizontal lines of moulding of the cornice itself, and also to give it connection with the walls. The latter may be papered, and the pattern should be one the lines of which are perpendicular; and if in the assortment at hand, a selection can be made of a paper in which the embellishment was formed by the design shaping itself into

stripes about the same distance apart as the arches just mentioned, it will be well to choose such a pattern.

The base of this room may be higher than usual, but a panelled wainscot, such as would be appropriate in the hall, library, or dining-room, would be too heavy for this apartment.

Without going further into detail of the internal finish of the rooms upon this floor than space permits, I must leave the imagining of the rest of their embellishment to a taste which will lead rightly if it suggests simplicity and quietness.



PL XXVII.—SUBURBAN GOTHIC VILLA—CHAMBER FLOOR.

The staircase that conducts to the chamber-floor should be of somewhat massive design—the balusters and posts being moulded and panelled rather than turned, and the handrail broad, and perhaps enriched with carved work in the moulding of its outer side. The walls inside the stairway should be wainscoted with arched panels the same height as the balusters, and finished on the top with a rail of similar mouldings to that of the inside of the handrail. This stairway leads first by a broad flight on to a landing over the waiter's pantry, which is eight feet square, lighted by a broad mullioned window, and ornamented by niches in each corner.

This landing is marked No. 1, upon the plan, and from it a door leads into an inner entry, No. 2, upon one side of which is a water-closet, and at the end a bath-room, No. 3. These conveniences are upon a lower level than the remainder of the chamber-floor, to gain which latter a flight of steps conducts from the landing to the principal hall upstairs, marked upon the plan No. 4.

This hall is large and airy, and has arches over the various vestibules shown upon the plan, and which lead to different rooms. Its ceiling is coved towards a stained glass panel, which admits light, and which, being inserted under the roof above, is amply illuminated by the lantern, and other apertures which are represented upon the elevation.

The principal sleeping-room upon this floor is No. 5, a large and commodious apartment, the same size as the dining-room. The bed is intended to be placed in the recess that corresponds to that contrived for the side-board in the room below, and the large and unob-

structed space thus left is made still more desirable for pleasant use by the projecting bay which shoots out of its side towards the further end of the chamber, and is supported by its mode of construction, without extending to the floor below. There are two large closets provided in this room, and in addition, the chamber, No. 6, connecting with it, may be used either as a dressing-room, or for separate accommodation, its size, ten by twelve, adapting it for either purpose.

Above the front drawing-room is a chamber, No. 7, about sixteen feet square, the entrance to which is from a vestibule that opens towards the central hall by a Tudor arch. This room contains a large closet.

Adjoining this is a pleasant room, No. 8, the half octagon end of which juts out beyond the side wall of the building, and contains windows in each side. To increase the available space of this little chamber a recess is formed for the bed in the manner shown upon the plan, and opposite to it is a large closet. The size of this room, exclusive of the alcove for the bed, is about nine feet by fourteen, and it is entered from the same vestibule that leads to 7 and 9.

No. 9 is of similar size and arrangement as 7, and next to it is a chamber, No. 10, which is ten feet by twelve, and provided with a large closet.

Above the library is a chamber of the same size, No. 11, also having a closet, and this room completes the sleeping accommodation of this floor, making in all seven well-proportioned and pleasant rooms.

Above there is space for three sleeping-rooms over 7, 8, and 9, and a large drying-room in the remaining portion of the front roof over 5 and 6, in addition to which other sleeping-rooms could be contrived if desired. The plan of the roof supposes that the portion above 10 and 11, and over so much of the hall as the lines of wall indicate, is not carried up so high as the rest, but stops against the walls that support the main roof. This arrangement permits a very large reservoir or cistern to be formed in the space above the bath-room, &c., at such a level as to receive water from nearly every portion of the roof, the overflow from which and the surplus from the other portions of the roof would be led into other cisterns of ample size in the ground.

The position of this cistern is in every respect advan tageous—its nearness to outer walls and to chimney stacks, make it easily supported, and in winter readily protected from freezing, and in case of accident is over such portion of the house that would least be injuriously affected by any leakage or overflow. In a chapter further on, the subject of plumbing will be briefly entered upon, and modes by which these results can be effected will be described.

Warming and Ventilation.—With one of Boynton's large furnaces in the cellar, with a metropolitan range in the kitchen, and one in the laundry, the former can readily by effected, and with the assistance of each of these, and proper distribution of a few air-flues, as represented upon the plans, the perfect ventilation of every

room can easily be secured. In heating the building, the range referred to may safely be depended upon to. at all times, warm three rooms in addition to performing all the culinary functions required, and the amount of heat thus made available can be turned into the library -the chamber above, with the bath-room, and cistern over-or may be led into the conservatory, unless the latter might be so used as to require a separate and constant heating apparatus. The range from the laundry may also be depended upon to about the same extent, but the size of the family and frequency of its use must determine to what extent this fire may be made serviceable in warming the chambers or other rooms. A plan can, however, readily be contrived by the furnace setter, by which these ranges and the furnace may be mutually assisting, and pipes therefrom lead into such rooms as are constantly in use, so that, for instance, when the ranges are not in full heat, the furnace will suffice, or when the contrary is the case, the warm air from the latter can be turned into other channels, such as spare chambers or drying-room. The only independent fire required in the house would be in the billiardroom, though even for that the furnace would amply provide unless it was feared that the remainder of the house would suffer from such deprivation of heat.

The air-ducts allotted to the purpose of conveying over-heated and impure air from the apartments are, in some cases, provided in the chimney-shafts, and ordinary apertures in the fireplaces, and in others, distinct tubes are carried up in the partitions and elsewhere. The principal air-shafts are those which have previously been spoken of as carried up in the piers supporting the central arches in the principal hall. These should be of tin, ten inches in diameter, and connected with them should be openings both from immediately above the floor, and below the cornice of the rooms that they adjoin. Of these but three serve wholly the purpose of ventilation, one conveying hot air to the chamber floor, and terminating thereon. The remaining three are conveyed into the roof, and are drawn together into an airchest, terminated by a large out-draft ventiduct, the somewhat unsightly appearance of which is concealed by its being placed in the open lantern shown upon the roof. All the rooms should have apertures in or near the ceiling, provided either in the pattern of an open cornice or in the centre-piece that embellishes the support of the gaslight or chandelier. These apertures must connect by means of tin tubes, about twelve inches by four, with the flues in the chimney-shafts, or with the air-ducts in the hall. In summer time, by leaving the registers always open, by seeing that the valve in the furnace was left unclosed, and by the action of the air-ducts in the hall and flues, a constant and equal flow of air would be obtained sufficient to give healthful supply of pure atmosphere to each indweller, and a general sweetness to the whole house. In this simple mode of effecting so desirable an object, nothing complicated, expensive, or liable to derangement has been suggested, and as all readers will, I presume, admit that fresh air, without draught, is an enjoyable possession, there is no excuse for not endeavoring in every home to procure it, to the benefit of our lungs and lives, and the better durability of our buildings.

The illustration of the external appearance of this villa gives a representation of the principal front. The plan shows the outlines to inclose nearly a regular square-broken, however, by a projecting wing at one The elevation, without needlessly introducing side. irregular breaks, still more decidedly departs from the squareness of outline suggested partly by the plan, and the composition of this front has an appearance varied as a lover of the picturesque would demand. The projecting wing, being nearest to the eye, is properly made the principal feature, and the upward leading of its outlines is strengthened by the management of its features, as consisting of windows, canopy, and gable, each of which is, in design, connected with the other, and each one falls back from the member below, so as gracefully to lead the eye from the base of this portion of the building to the finial terminating its gable.

Next to this is placed the entrance porch, made sufficiently prominent to duly mark its character, and stopping against it, but in subordinate relation, is a veranda, divided into three openings, the central one of which, opposite the pier between the two windows, is smaller than that on either side. Against this central pier is placed a seat, and, as the long window from the dining-



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room opens on to the veranda, this would be a pleasant resting-place for an after-dinner cigar, in fitting weather.

Above the porch are two narrow windows that give light to the chamber at the end of the front hall, and in line with them are the bay-window and the other windows of the large chamber over the dining-room. The roof of this portion of the building is lower than that of the projection, and its surface is broken by small openings containing trefoil-lights into the attic.

The elevations of the other sides may be partly understood from this illustration. Upon one side would be the long line of roof of the projecting wing, broken by the outside chimney-shafts, and by the bay-window which is carried up to the ceiling of the second story. The other side would consist of a gable, such as the illustration indicates, over the dining-room, &c., broken by the projection that the plan contains, and below this would be the eaves of the roof over the lower portion of the building, as explained in the description of chamber plan. The rear would be something similar in its roof management to the front elevation, with just such an amount of embellishment as situation seemed to render necessary.

The material may be brick, with stone dressings—brick entirely, the architectural features of the design being executed in moulded brick, of perhaps a different color—and the tracery of windows, &c., of wood—entirely of stone—or of brick covered with mastic, and the

decorated portions either of stone or of durable composition.

The style is that of the later period of Gothic, and the characteristics that distinguish it have been sufficiently preserved without causing any intrenchment upon modern convenience and comfort. There are few situations that would render the erection of such a suburban villa inappropriate, and few families would require arrangements more commodious than the plan affords. The cost, in the neighborhood of New York, Philadelphia, or Boston, would be influenced, to some extent, by the material chosen, but may be stated at from eight to twelve thousand dollars—the margin named allowing for elaborate or simple finish of the exterior or interior, as the taste or-circumstances of the owner might demand. In other situations the expense would be less; and, whilst the building is upon such a scale as to allow the builder to lavish any outlay upon it, and to bring it to utmost finish of elaborate design, there is nothing that would be less fitly completed in the most simple and inexpensive manner. In fact, this would be somewhat a seductive home for a man of taste and means to commence; the capabilities that the fine suite of rooms, and the general liberality of internal arrangements afford for appropriate embellishment, would be very apt to draw him on, step by step, towards enriched completeness that would easily be made to require a large expenditure; and this from the very honesty of the requirements of the style-the educated eye perceiving at once

that gingerbread construction and meretricious ornament would be out of place, and that decoration, when used, must be in real material and in earnestness of purpose.

Of the ornamental details, of no style can it so truly be said—

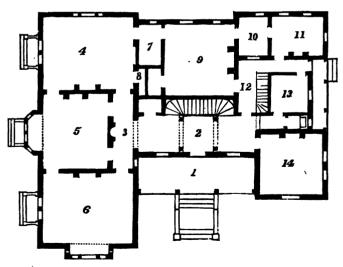
"'Tis Use alone that sanctifies expense,
And Splendor borrows all her rays from Sense."

The villa last sketched was supposed to be upon a suburban lot of limited size, and from which the pleasanter aspect was the front and rear. The next house that is offered represents a building seated upon an area more extensive, and in which the desirable aspect is from one side. Such situations are common, and the villa contrived to illustrate the manner in which such requirement of locality can be met, is one affording an example of a class of home in very frequent demand.

The ground lies in such a manner, that the building is most conveniently placed near to the boundary line upon one side, leaving an open stretch of lawn upon the other, and the yard for domestic use in the rear. The rooms of most frequent occupancy are therefore arranged with the windows towards the lawn, beyond which the most agreeable features of the landscape may be supposed to be. The residence is for the use of a

family, of which the gentleman has either professional occupations, or literary taste leading to a preference for a quiet, own-room, so contrived as to be easy of access from without, and yet protected from intrusion or interruption.

As this house is supposed to be required in the outside limits of the suburb, just where the open country begins—a greater spread of plan upon the ground is permitted, and the kitchens and other domestic offices are therefore on the same floor with the principal rooms, and although a cellar is intended under the whole—the furnace-room, coal, vegetables and other store-rooms are all that the space below the principal floor is devoted to.



PL XXIX.-PLAN OF PRINCIPAL FLOOR.

The peculiarities of this plan, are the airy space that is given to it by the arrangement of the hall and vestibules, and the comparative isolation of the suit of family rooms upon one side, from the domestic offices in the central body of the building, and the equal separation of the private office or study upon the corner.

Upon examination, few plans will be found that for the class of house they suit, will afford arrangements so commodious, and in every respect elegant.

The entrance, No. 1, is under a wide arcade in front, equally divided by columns and arches into three openings—opposite the centre one the hall-door being placed, and on the either side a wide window corresponding to the other arch. This arcade being ten feet in depth, and twenty-eight feet in length, supplies to a great extent the place of a veranda, the other sides of the building so arranged as to make such a feature not essential, although if wished, one can be added to the long stretch of side wall that contains the principal suite of rooms.

The principal hall, No. 2, is ten feet in width, and the same length as the arcade. In its one side is a central recess extended five feet further back, in which is placed the principal stairs, in front of which are columns supporting the floor overhead. At the end of this hall is a large closet, and beside it a wide arch opens into a vestibule, No. 3, which is five feet wide, and in addition to their provision through the open arch, has light and air given to it by a window opening to the arcade in front. In this vestibule is a niche for a statue, placed opposite

the arch, and from it doors covered with the principal suite of rooms.

Of these, No. 4 is the dining-room, seventeen by twenty-two, with a double window opening on to a covered balcony, connecting, by three or four steps, with the lawn, and in the longer side a larger window towards the garden, which should be so disposed as to permit a group of shrubbery or a winding evergreen hedge to run from the inner corner towards the rear boundary, and thus screen the domestic yard from view. Next to this is the library, No. 5, which is eighteen feet long, and about sixteen deep, and from one side of which an embayed window projects upon the lawn.

No. 6 is the drawing-room, which is of the same size as the dining-room, only that in addition is a large projecting window in the front. These three rooms all connect with each other, and also with the vestibule, and form a most symmetrical and elegant suite.

Connecting the dining-room with the domestic offices is a large store-room and waiters' pantry, No. 7, which is six feet by nine. In addition to this is a separate china-closet, No. 8, with a door into the dining-room, and a store-closet from the kitchen. This is conveniently placed in relation to the sideboard, for which space is contrived in the recess between the door of this closet and that of the waiters' room.

The kitchen, No. 9, is about sixteen feet square, and, although in the very centre of the house, is so shut off by the staircase and passages that its presence would

never be suspected upon entering the building. Two large windows light one side, and connected with it is a sink-room or scullery, No. 10, and beyond this a laundry, No. 11, the size of which is twelve by fifteen, and in it is a range and boiler.

No. 12 is the inner hall, connecting with a passage conducting out-doors, and in this is the private staircase to the cellar and chambers, and a door leading into the main hall. The rear entrance is protected by a covered arcade, as is represented upon the plan.

In addition to these is a sleeping-room for a manservant, No. 13, which is so placed as to be within easy reach of the principal and rear entrance; and in the entry that is upon one side of this room is a water-closet, having a window towards the rear arcade, the glass of which would of course be screened by a permanent blind.

The private study or office, No. 14, is on the corner of the building, and forms the first stage of a tower in one of the designs of the exterior, and is the projecting end of a wing in the other. This room is fourteen feet square.

The sleeping-rooms on the floor above correspond in size and arrangement so nearly with the apartments upon this floor that an illustration is scarcely necessary.

There are, in all, eight good chambers, two dressingrooms, a bath-room, water-closet, large linen-closet, and ample space for closets in connection with each chamber. The linen-closet is at the head of the principal stairs, above the hall-closet and china-closets below; and the bathing-room and separate water-closet are over the man's sleeping-room and W. C. below.

The hall on this floor is very large and airy, and, as it is so arranged that no bed-rooms open immediately from it, and the staircase is in a recess, the cheerfulness of its lookout would render it an agreeable upstairs apartment, and could so be used by the ladies of the family. Its wall spaces might be occupied by bookshelves, and pictures should be hung upon the walls of the staircase, as the light would be well adapted to their display.

The chamber over the private study is the second stage of the tower, and will be somewhat higher to the ceiling than the other rooms upon this floor. Above this room is an upper room of similar size, access to it being made by continuing the private stairway to an attic over the bath-room, &c., and the other rooms in the wing. These rooms will be lower upon this floor than the rest, being nine feet in the clear.

The heights of the rooms otherwise are as follows:

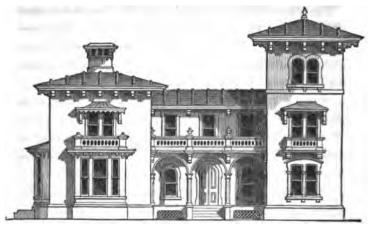
The cellar is seven feet in the clear.

The principal floor, excepting 10, 11, 12, and 13, with the passages connected therewith, is thirteen feet high. The portion thus excepted is ten feet in the clear, and on the floor above, steps ascend from the inner hall (above 12) into the front hall.

The chambers are eleven feet high, with the exception of that portion previously named.

The plan of this villa fits the building for any amount of finish that taste and wealth may lavish. The airy breadth of its halls, and the wide sweep of rooms connected together, give an amount of elegant spaciousness that would well deserve embellishment; but the proportions and disposition of the interior are such as to please in themselves, however simply the architecture of the building may be designed, and however void of ornamentation the details. In fact, in carrying out the requirements of the style, on the one hand, the interior would bear to be of the utmost rigor of consistent simplicity—the furnishing, painting, and papering being in harmony therewith—and to render this really commodious dwelling capable of adaptation to varying situations and demands, I have prepared two views of exteriors, fitting for erection in accordance with the plan, in entirely different styles. One represents an Italian villa of the Roman school; the other, a quiet cottage-like family home, of rustic semblance. The only essential difference in points of arrangement between them is, that the third room afforded by the upper story of the campanile or tower is omitted in the latter building, and that its walls are lower, and the grouping of windows somewhat different. In all essential respects, as regards internal convenience, the two buildings remain the same.

Simplicity and breadth are the characteristics of this elevation—the tower terminating the building on one side, and the broad mass that corresponds with it on the



PL XXX.-LARGE VILLA IN ROMAN STYLE-ELEVATION.

other, are in themselves sufficiently complete to form an adequate composition, and connected as they are with each other and with the central mass, the effect of the façade is one of much dignity.

The details and architectural finishing are conceived in the spirit of the Italian style, partaking principally of the Roman period of development. The great projection of the portion that contains the principal rooms would cast a deep shadow upon the front of the building, and as the entrance arcade is thus considerably recessed from its outer wall, it is possible that a platform and balustrading extending the steps opposite to the hall-door, to the line of this projection—might be found desirable in case the carriage drive led to the front of the building. As such an arrangement would depend

apon the situation to render it necessary, it is not represented upon the elevation, but in front are dotted lines upon the plan (see a few pages back), showing in what manner such an addition could be made, if thought desirable.

The material conveniently adapted to this building, that circumstances might lead the builder to select, would somewhat influence the mode of construction of the arcade, bay-windows, balustrading, vases, and other embellished features, but the general effect that they produce can safely be depended upon, by the employment of any material usually offered, and as modes of harmonizing them have previously been suggested, the reader is asked to remember that the very simplicity and proportion of the building require that any such embellishments when used must honestly be real. In the latter portion of this volume a chapter will be found that contains many hints upon out-door and in-door plenishing and adornment, and I would beg the reader to refer to it in conning over the various examples of the several classes of homes that come within the scope of this work.

The arrangement of the grounds about this villa should be such as to give the effect of unbroken masses of shade and verdure—small beds and miniature garden plots would be out of keeping, and upon a site of limited extent, a bold spread of unbroken lawn would better set off the building than elaborate gardening—

trusting rather to the architectural embellishments of terraces, vases, or perhaps statuary, than to little patches of flower-beds.

The cost of this villa carried out in accordance with the Italian elevation above given, would be about nine to ten thousand dollars. The following mode of erecting the building would reduce the expense materially, as a less costly mode of finishing both within and without could be adopted.



PL XXXI.—ELEVATION OF SAME VILLA IN ENGLISH RUSTIC STYLE.

The difference of plan involved in the construction of the villa in this style have been before explained; and the material would in no manner affect the proper development of the details. The cost need not exceed seven thousand dollars, and the character of the building renders it suitable for erection in the country equally with the suburb.

In the vicinity of many country towns, a villa is required of more ample size than those that have been sketched in previous chapters, but somewhat differently disposed upon the ground to the building last described. Generally the land undulates, and occasionally situations of great boldness and beauty are attainable, requiring the building to be designed in special reference to the scenery.

Just such a situation lately gave occasion for the erecting of a villa which may serve fitly as a fair type of the class of house to which I mean these remarks to apply.

In the vicinity of a small city in New England,—one to which nature has been unusually bountiful in all the loveliness of wood and rock, and noble waters, is a spot of ground, upon which now stands the building that is presently described. Distant a mile, perhaps, from the busy city below, sufficiently high to overlook an expanse of landscape varied and beautiful, is a bold and naturally terraced eminence, well shaded with evergreen and other trees. On one side of this, the main-road leads upon a level, and upon the other, a winding lane dips down from the street above, stops for a bending entrance way to the villa gates at the corner under

waving trees, and winding round the side and lower boundary of the grounds leads to a most romantic and beautiful waterfall. The view of this beautiful feature is commanded by the site above; the house therefore required as a first essential that the loveliness of the land-scape should be enjoyed from every window.

Back a considerable distance from the main road, and partially screened by trees and shrubs, stands the villa, its approach being from the front road, which is about east, and the occupied rooms looking into the pleasure garden on the southern and western sides.

The accommodation was required on a liberal scale, to afford which, and to suit the distribution of the rooms to the site, the following arrangement was determined upon.

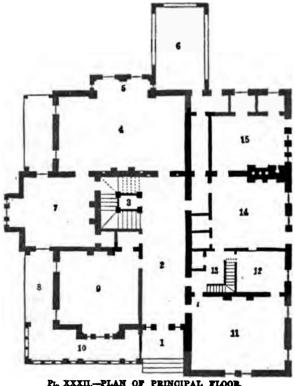
The cut represents the plan of the principal floor, the position of each room being as reference to the figures will show.

No. 1 is the entrance porch, leading from which is the hall, No. 2, with the principal stairway, No. 3.

The hall is lighted by side and transom lights in connection with the doors in front, and also from the staircase, down which an ample illumination is poured by the windows that will be presently seen on the chamber floor.

No. 4 is a large drawing-room at the end of the hall, the doorway into which is ornamented by niches on either side; a door on the other side of the fireplace and at an equal distance from the end wall leads into the library. The drawing-room, twenty-seven feet long by seventeen

wide, and thirteen and a half feet high, is relieved from monotony of effect by the large bay window, No. 5, in its long or western side. This window with a large arched opening from the room leads through a door window on one side into a conservatory, No. 6, the windows in the south end opening upon a veranda.



The bay window in the drawing-room looks upon a most lovely lawn bounded by trees and shrubs, at the end of

which is a seat overlooking the romantic falls before alluded to.

The library, No. 7, is a square room forming the lower member of the tower, which gives so much of character to the building. This may be seen on reference to Pl. xxxiv., which shows a view of the villa that is the subject of these remarks. The library has on its southern side a bay window, its other windows east and west opening on to verandas as on the plan. Connected with the library is a fire-proof closet next the fire place, the opening to which corresponds with the door into the room which is reached from the staircase hall.

The family sitting-room, No. 9, is an apartment of about seventeen feet square, with windows on the one side opening on to a veranda, No. 8, and with a projecting oriel in front communicating with a terrace, No. 10, which joins the veranda. In addition to the doorway directly in the hall, this room has a private means of entrance, by a private lobby connected with the principal stairway, this lobby serving, also, as a closet, being of ample size for both purposes.

These rooms all lie upon one side of the main hall; upon the other are the dining-room and domestic offices, which are distributed thus:

No. 11 is the dining-room, a handsome, well-proportioned apartment eighteen feet by twenty three. In front is a wide window overlooking the carriage drive and road, and on the north side are two windows. This room is

twelve feet high, as are all others on this floor with exception of the drawing-room. Connected with the dining-room is the sewing-room, and butler's pantry, No. 12, well lighted and appropriately placed.

Next to this is an inner hall opening through a doorway into the main hall, and in which is the servants' staircase to the cellar and to the floors above. In this hall are closets, and the whole is lighted by concealed windows from the hall, by lights over the inner doors, and by windows on the highest floor above, as the view of the house will show.

The kitchen, No. 14, is a large handsome room well provided with closets, and shut off from the main hall, yet conveniently near to the living rooms. A corridor from the hall with a door opposite the staircase conducts to the kitchen and also to the other offices, and as shown on the plan, terminates in a back vestibule in which are doors into the conservatory and to the outer yard.

Back of the kitchen is a large laundry, or second kitchen, No. 15, in which are larder and store-rooms, and also a back way out, sheltered by enclosing outbuildings, that space would not permit to be delineated on the plan. This portion of the house beyond the kitchen is one story only in height, the rooms being ten feet in the clear; the drawing-room is also carried up but one story, but is of a greater elevation.

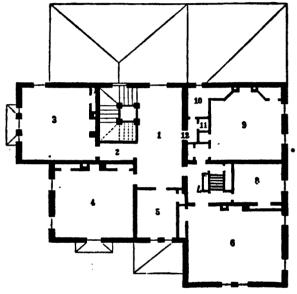
Below this floor is a large, airy, and well-lighted cellar, so roomy as to afford every possible accommodation for all accessories not comprised on this level, and possessing a peculiar feature in the arrangement made for the furnace, which is sunk in a sub-cellar below the floor of the cellar, as also its coal compartment and approach, the advantage of this place being that the warmed air more easily and readily ascends into the rooms, because the greater depth allows a more gradual angle for the hot air pipes, by which all pressure is taken off them, and a large volume of moderately warmed air conveyed steadily through an unusually spacious channel is permitted to permeate the house.

The chamber plan affords four large and two smaller sleeping-rooms on the second floor, and four airy and large chambers in the attic or third story. The rooms on the second floor are arranged as follows; the reference agreeing with the figures on the plan:

The principal stairs reach by easy and broken flights to the corridor, No. 1, in which and on the stairway, are wide windows above the roof over the drawing-room—amply lighting and ventilating the halls.

From this an open smaller corridor, which is not closely partitioned, as the plan would seem to show, but is formed of a screen of light and ornamental tracery, conducts to a chamber, No. 3, the same size as the library below. This room has a window on its south side, opening into a balcony formed by the balustrading of the bay window below, and is sheltered at the top by a canopied roof supported on brackets.

No. 4 is a large sleeping-room over the parlor, also with a balcony and long window, but as the roof comes so nearly over the window as to afford sufficient shade, the canopy, in this case, is not necessary.



PL XXXIIL-PLAN OF CHAMBER FLOOR.

No. 5 is a small single room at the front end of the hall.

No. 6 is a large room, the same dimensions as the dining-room under.

No. 7, the hall containing the staircase to the floor above and the servants' flight from below, also a large closet.

No. 8 is a single room the same size as the butler's pantry on the lower floor.

No. 9, a chamber over the kitchen, is of a broken form, to permit arrangements for a bathing-room, closets, &c.

No 10 is a bath-room encroaching in the manner shown by the plan upon the room last referred to, the bathing tub being disposed lengthwise under the window and reaching into the part cut off the sleeping-room. This projection into the room is balanced by one of similar form the other side of the fireplace, and contains a large closet.

No. 11 is the water-closet, and 12 is an entry leading to this and the bathing-room, with the doors so placed in relation to each other as to perfectly screen the inner openings.

The chamber, No. 9, is entered by a lobby from the back staircase, and contains a closet for housemaid. The room itself is also provided with a second large closet in addition to that formed by the projection near the fire-place.

This room, from its position and conveniences would serve admirably as the nursery, in which case a door could, if required, be cut through the partition between it and No. 8.

The attic floor extends, as the external view of the building shows, over the part of the house containing the rooms (on second floor,) 6, 8, 9, 1, 2, and 3.

Over No. 6 is a large and very pleasant chamber, the walls of which at the side are 8 feet high, with the ceiling rising in the centre up a curve to 10 feet in the clear.

Above 7 is the landing of the attic staircase, well lighted by two round-headed windows which may be seen in the recesses on the external view.

Over 8 and 9 are sleeping-rooms, and in the portion above the principal staircase, is a corridor well lighted on its external side, leading to the upper room in the tower, and on the other side the corridor are two rooms serving for servant's sleeping chambers, the windows to these being on the west side.

The upper room in the tower is a large and lofty apartment with windows on three sides, used as a pleasant sitting place, from which one of the loveliest scenes that an artist could desire, lies in full extent of view below.

The material of which this villa has been constructed is brick painted, and with dressings of Connecticut brown stone. The architectural details are all well developed, and the effect has given satisfaction to all who have spoken of it. The cost,—it was built by contract,—was about ten thousand dollars, and the edifice is most substantially and thoroughly constructed.

Such a villa as this should be finished within in a simple and elegant manner, the walls painted or papered, the cornices of just proportions and free from overcharged ornament; the doors of either light wood, such as maple or satin wood polished, or else of pine well seasoned

and painted colors that the papering or other finish of the rooms would best accord with.

The hall and staircase give so much of character to the internal expression of this villa, they should be finished and furnished in entire accordance with its general design. The walls may be panelled in wood, oiled and varnished, or painted in fresco, and the ceiling overhead finished in a similar manner, and the staircase connected with them, by use of details identical in character.

The heavy panelled posts that surround the well should be designed in a massive but simple manner, without carvings, but with mouldings of deeply-cut contour. Upon the second story a screen incloses one side of the stairway, and this should be finished in the same massive style.

The hand-rail broad, and the mouldings well defined, and the underside of the stairs so constructed as to allow the finish to be made of the risers and treads themselves, supported upon a heavy string resting against the wall, and upon a framed carriage on the side towards the well: the whole of these of wood hand-somely polished and moulded.

Instead of supporting the hand-rail by balusters, in the usual manner, a bronzed scroll, fitted to each step, and so designed as to allow one continuous outline from post to post, made light and small, portions here and there relieved by gilding, would give an exceedingly airy and appropriate finish. The effect would be very elegant and rich, and the cost not materially greater than turned calusters would demand.

The internal ornamentation and furniture of this villa. if selected with due reference to the architectural style of the design, should be rather simple, but of highly finished material. The drawing-room with its principal furniture to match, and the pieces not many in number; these disposed symmetrically around the room, and such other articles as use and comfort required, rather of a different character, color, and material, so as not to disturb the repose of the apartment by confusion of too many parts. For instance, against the wall at the end of the room on the right hand from the door would be a space, recessed, if wished, in which could stand the piano, towards the room, and back of it a console table or shelf on brackets, with a mirror without any frame but a simple moulding and entirely filling the space left in the recess on the wall. This mirror would reflect the windows in the opposite wall, extend the perspective of the room, and repeat the charming landscape without. On either side of this recess would be a space for a chair or two, and in one corner a stand of shelves planned to the angle and filled with such ornaments and odds and ends as artistic taste or travel might have gathered together.

On either side the bay window, an ottoman would find space, and in the bay itself low dwarf seats and a sofa table, above which might hang a basket of flowers. Between the windows at the other end a pier glass would still increase the perspective effect attained by the mirror on the opposite wall.

Custom has sanctioned placing a mirror over the mantel-piece, but unless the glass be made a portion of the design, the practice is apt to produce a vulgar and tawdry effect. Frequently a dead wall is reflected in its face, and hence the perspective of the room is not enlarged; it is only where an opening, as for instance, the bay window in this room, comes on the opposite side, that the introduction of this fashion becomes allowable. The drawing-room that is under discussion would, therefore, permit a mirror over its mantel, the same treatment being recommended in this case as for the mirror on the north wall.

A very good effect may be produced by connecting the design of the mantel with the rest of the room, which may be done by forming the base around the walls of marble of the same description as the mantel. This is not too expensive to deter from its adoption, and the cleanly elegant and durable finish it imparts, should recommend it in such cases for general use.

Amongst the woolen fabrics in the New York Exhibition of the Industry of all Nations, are some carpets of English manufacture that seem absolutely the perfection of simple harmonious coloring and design. One of them is a dark maroon ground with a small floral decoration upon it, not an imitation of nature or of highly

wrought individual flowers, but a species of mosaic which is interwoven with the ground-work of the carpet, in brighter colors, small in form and admirable in general effect. There is also a second example of a delicate reticulated pattern upon a rich green groundwork, that is excessively beautiful; either piece is in its way a perfect model of what a floor covering should be, and offers a pleasing contrast to the huge forms, tawdry colors, and unmeaning arabesques of too many parlor carpets.

There is a simple rule used by artists in regard to the general tone of apartments which determines the color of the carpet in relation to the rest of the decoration. It is to let the tint of the floor be darker than the walls, and the walls than the ceiling, darker not by actual admixture of deeper shade, but by graver tone of coloring. Now a carpet may be as light and as white as delicate wool tints will let it, and yet it shall be deeper than the walls and the ceiling, neither of which shall be pure white. There may be a carpet, on the other hand, with even black in its design and yet be painfully lighter than the rest of the room.

In the former case, the gradation is obtained by the absence of reflecting or refracting power of light in the carpet, and its presence in walls and ceiling;—in the latter the discord will have been produced by glaring contrasts of opposing colors, by which the rays of light were confused and wavering. There are even laws, almost

geometrical in their distinctness, which have been given in regard to the due proportion and power of colors, and many interesting theories have been written thereon. But the perception of harmony of coloring is inherent, and although artists may be able to give theories which explain the principles upon which such harmonies depend, the taste which is called upon to furnish and decorate a villa will be little apt to apply any formula than the eye to the selection of shades and tints and their relation to each other.

It is said that the superiority of effect in Parisian toilettes, is owing to the fair purchasers never selecting a tint for its beauty in itself, but always in reference to other adornments and habiliments with which it is to blend. Be this as it may the principle is an invaluable rule in the selection of articles of furniture for a house, and if followed, a system will result which cannot fail to produce harmony and beauty.

The colors appropriate to the exterior of a building have been so frequently alluded to that it is only necessary to caution against giving a heavy gloomy appearance to its architecture by painting a dark color. The tint used by painters when they attempt an imitation of Portland stone is far deeper than the color of the original material, the latter possessing a liveliness and a variety of tint that produces a much more delicate effect. There is a certain amount of reflection, almost a translucency, about all stone, which gives a relief that a flat

unreflecting painted mass of brick-work, if even colored actually of a somewhat lighter tint, cannot attain; it becomes necessary therefore in painting a brick building to compound a color very many degrees lighter than the hue of the mass is intended to be, and a color lighter than the same building would permit if framed, and covered with wood.

In regard to painting a brick house, builders will find an economy result from giving the brick work a coat of oil previously to painting. By this means the color when laid on becomes a hard mass on the surface, and does not peel or flake off; the oil may be equal parts boiled and cold linseed, and the brick-work so painted will be very much more durable.

Observers will have noticed how frequently an imposing building is spoiled by the arrangement, or rather want of arrangement of the pipes and leaders to convey water from the roof. The provision of these very necessary apparata is generally an after-thought, and hence a disfigurement.

In an irregular building, where the roof is much broken up, there is sometimes a great difficulty in so placing the leaders as not to interfere with the lines of the house. The system to be adopted is to carry the pipes either in an angle of the building or on the external corners leading into them from the gutters, with, if possible, such an adjustment of the brackets or other ornamental features, or

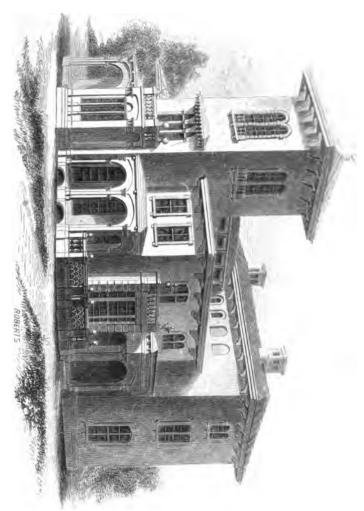
of the overhanging roof itself, as shall not break the outlines of the design.

But where these are thought of from the first there should be no difficulty. In a brick building recesses may be left a foot from the corners on the least exposed sides for the reception of the leaders, or they may be carried in angles formed by projections or recessed portions, and the water conducted in a concealed manner into them, in every case using caution that the main lines of the principal fronts are not broken in upon.

Sometimes for their better concealment, the pipes are carried inside the building, a plan that it will not be well to follow on account of the danger from any accident, which would cause destruction to the inner finish of the walls. To fill a reservoir in the roof, where such is necessary, the pipes should be conducted by as steep a slope as the height will permit, and in lengths as short as possible and from few points. These pipes should be larger than would be used without the building, and where they open into the gutter their mouth should spread, and be at the same time protected by a grating from becoming choked by dead leaves or other light substances that might be washed into them from the roof.

In constructing such a cistern it is well to have a flue from the kitchen or other constantly used fire-place running through it, the heat being communicated by a cast iron plate in the flue, forming a portion of one side of the reservoir, or a small hot-air pipe may lead direct from the







furnace when such is provided; in either case the object being to prevent freezing and its attendant ill effects.

The outhouses suitable as adjuncts to a villa such as the one above described, should have a character similar to that of the house. In many situations the design given in the last chapter, page 113, would be appropriate, and without occupying farther space with a description of these accessories to a house, which can so readily be contrived to meet each possible contingency of site and domestic requirement, the reader is asked to look back a few pages and examine the plan there given.

Thus has been depicted the suburban villa of ample size, suited to a family of taste and wealth; and as an example of honest use of embellishment, and close attention to the requisites of home comfort, attained at a moderate expenditure, the building is presented to the consideration of those whose verdict must determine whether it be, or not, designed in accordance with the principles I have set for myself as rules to be followed in contriving a home for the people.

Many buildings not furnishing the liberal accommodation of this villa have been constructed at a far greater outlay, and yet the decoration of the mass is as much as its simplicity of arrangement requires, the effect having been attained more by the balance of its parts and the play of light and shade afforded by its outlines than by the ornamentation of its details; and whilst it is not denied that the design is susceptible of still more decorative architectural display, the claim made for it rather rests upon the telling result that has been obtained with very little decoration.

It stands complete as it is, and yet if the owner be inclined to embellish its exterior and enrich its details, from time to time, as he see fit, the proportions and harmony of the building give him a back ground to work out, from which he will let every touch tell, and will permit as much or as little elaboration as his eye and his purse may contrive and execute.

How rarely, however, is this done. No one is content to finish by degrees and attain a whole and grand result by the gradual building up and elaboration of its parts; every thing must be complete and finished at the first, and nothing is allowed to remain for matured afterthought and gathered experience to perfect. I would that homefounders would not dash into a finished design at once, but would complete first of all, and complete it thoroughly, what might serve as a nucleus for after additions, and then as means increased and judgment gathered strength by exercise, the added wing, or perfected main structure would steadily attach itself to the first contrived provision for the owner's present necessity, and a perfect and well-considered home be the result.

I know my readers will object to this, urging their impatience to have the design for their house carried out at once, and their intolerance at living in a confusion of bricks and mortar for an indefinite number of years;

still many a house-builder will be inclined to add the testimony of his experience to mine, and tell them how much better, when the place has been determined on, to just contrive sufficient accommodation for present wants, and afterwards complete a whole, which, perhaps, might have been rashly determined upon at first. Many a family who too precipitately rushed into the erection of a huge country house would now give largely to have been compelled to have followed such advice as this at the time they first commenced. How few extensive country houses remain intact and in the same occupancy that first they were contrived for; and on the other hand, how rarely is it that a small, well-contrived homestead is "in the market."

The villa before us is sufficiently extensive for the accommodation of most families, and as a nucleus for after additions, is peculiarly suited. Its provision of rooms can readily be increased in a number of ways, one being to extend the walls over the drawing-room, lighting the staircase and hall from above, if only additional chamber accommodation be required; a second plan is to carry the hall beyond the wall of the drawing-room, making the room thus left a boudoir, and extending a large drawing-room across the end of the building as a wing. This carried into the second floor would greatly enlarge the house, and could be so contrived as not to injure its effect and outlines.

Various modifications of the plan, affording more or

less enlargement, might be suggested; it is only necessary to state the villa is susceptible of almost any after addition, and hence is adapted to nearly any possibility of requirement.

The style that has been selected for the preceding design will be found to differ greatly from that of the second villa residence in this chapter, which will presently be described.

The Italian, so often dwelt upon, has been the character the villa illustrating the former remarks has received; the present will be seen to have a more irregular and quaint treatment, possessing a rustic and peculiar element in its composition which amounts almost—could a name be found for it—to a distinctive style.

The cottage ornèe of the suburbs of Europe has many lovely specimens of little houses, conceived in so varied and artistic a spirit as sometimes to border on the whimsical, and in all cases to defy the criticism of set rules and dogmas of art.

Yet in all of them is there a consistent regularity—discordant elements are never introduced, and though individually their details may seem to violate all school laws of orders and styles, the combination and composition of the various parts are frequently seen to produce a perfectly congruous and all-charming design.

Artists have always loved these little homes, although rule-and-compass architects have thought it dignified to slightingly treat them and scorn attention to the principles by which unquestionable beauty has been obtained.

Convenient arrangement of the rooms with ample provision of all the accessories upon which the domestic comfort of a house depends having first been secured by the plan, the form the building should take in connection with surrounding scenery is the essential consideration in designing a villa such as may be considered an example in this style.

Sometimes overhanging woods, steep banks or rocky projections compel the architect so to plan his building as to permit a wide spread upon the ground; hence a low and unobtrusive character is given to the house, to make it seem to grow out of and nestle amid the rocks and banks and evergreens. In this case the roof should overhang with easy slope, and the lines of its roof-top should be rather parallel with the lines of the ridges of natural forms surrounding it, projecting gables only shooting up their apex where the grouping justifies the pyramidal form.

By the side of a river where a grassy lawn slopes to its brink, with woods forming the back ground, the villa should be designed with long parallel lines, low, and not much broken by irregular heights, wide spreading verandas, overhanging roofs, low walls and few gables towards the river; these will be found to produce a façade that shall appear perfectly in harmony with the scene.

On high ground, where, although backed by trees, the outline of the building, seen from all points of view but immediately in front, rises sharp and clear against the skies, the element of perpendicular lines rather than of horizontal should be incorporated. These lines, with the natural slope of roof such a treatment requires, form the pyramid, that most beautiful and symmetrical of all outlines.

Where the mass is not so large upon the base as to compel the angle of inclination of the sides to be too obtuse, the pyramidal structure is one by which of all others elegance and beauty are obtained. There is something in the gradual gathering of the outlines into one culminating point, which is exquisitely beautiful, and it will be found that not a few of the pleasurable emotions derived from the contemplation of a beautiful building, arise from the presence of this influence. The graceful spire; the varied mass of detail and broken parts that make the Gothic cathedral, when their forms are viewed at such a distance as to permit only general outlines to be seen. possess in an eminent degree this shape, and it will be found in nature as in art that where the combination and arrangement of parts permit the development of the pyramid, an inexplicable harmony and symmetry prevail.

Though this form produces beauty, I do not mean to say that its presence is essential, because we see many pleasing architectural outlines which do not take this shape—many compositions and many situations would not permit it; but where its existence is fitting, a very high degree of beauty will be seen.

The design about to be described exhibits a small villa or cottage ornèe conceived in accordance with the spirit of these remarks.

The situation for which it was contrived is one of singular beauty—a tree-crowned hill serves as back ground to the building, in front and on either side of which is an undulating natural lawn, stretching down to the road. The view from the veranda and windows is over a wide expanse of mountain scenery, the shape of the masses of which suggested the pyramidal form that the outlines of the villa possess, as one most in harmony with the land-scape.

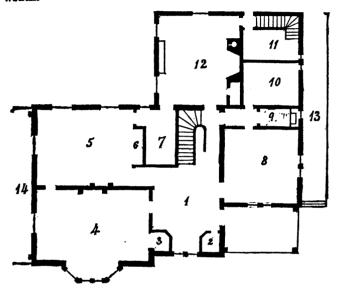
The accommodation sought was that required by a family of ordinary size, the plan permitting an extension if needed, as will presently be seen.

The ground floor comprises an entrance hall, No. 1, the external door to which is protected by a wide porch communicating with a terrace, No. 13, at the side of the building, which extends to the back door on the rear side.

In the hall, which is of large size, is a species of recessed window, formed by the closets 2 and 3; the former being for the hall, the latter communicating with the drawing-room, No. 4.

The hall contains also the principal stairway, which

is arranged to have a very easy rise and is of ample width.



PL XXXV.-PLAN OF PRINCIPAL FLOOR.

The drawing-room is a large and cheerful apartment, with a bay window in its front and a French window opening on to a wide veranda, the position of which is indicated by the figures 14 on the plan.

No. 5 is the dining-room—with a recess for side-board, No. 6, at one end.

No. 7 is the butler's pantry, or serving-room, with shelves and closet, and from which is a slide door on to the side-board in the dining-room.

On the other side of the hall is a library, No. 8. This room is a private study for the gentleman of the house, and communicates with 9 and 10, the water-closet and bathroom, 10 being sufficiently large to permit of being used as a chamber when extra accommodation would be needed.

No. 11 is a large store-room in which is a stairway into the basement below and to the floor above.

No. 12 is the kitchen, a large handsome room so proportioned as to permit its destination to be the dining-room, and the latter to be made a library in case the family were content to use the ample and well-lighted space in the cellar below for kitchen, &c. In this case a dumb waiter might ascend into the butler's pantry, or into No. 11, which might be made the serving-room.

The nature of the ground required that the house should stand so high as to make in this particular instance so excellent, light and pleasant a cellar, as to permit the whole of it to be used for domestic purposes, and thus give the floor above entirely to the family. At present the arrangement is in accordance with the plan; but if the requirements of the family render the change above referred to desirable, it can readily and economically be made.

On the floor above, the chamber arrangements are as follows:

Over the drawing-room is a large chamber of the same dimensions, above the dining-room and pantry are two, over the hall is a smaller sleeping-room, and there are four other rooms above the remaining portion of the building, and an opportunity if wished, of forming other rooms, for servants, in the attic; the height of the roof rendering such an arrangement perfectly feasible.

The building can be extended by additional rooms, carried out either from the rear part of the structure—by filling up the space left in the angle of walls of dining-room and kitchen—or by a prolongation of the line of front by connecting an extension with the library, and by using the space now occupied by the water-closet as a passage-way thereto. Or, as has before been hinted, the kitchen could be placed in the basement, the room now used as one converted into a dining-room, and the present dining-room be made a library.

The exterior of this building cannot fairly be represented by an illustration. The scenery in which it is placed, and the marvellous effects of light and shade that are thrown upon it, not only by its own projections, but by the grand hills and moving cloud shadows, give it a beauty that every hour seems to vary; and the home and the landscape are so evidently suited one to the other, that a pleasant trip to the beautiful valley of Berkshire County, Massachusetts, is recommended to the reader, who may find in this villa his own requirements met. It is placed near the beautiful village of Stockbridge, about a mile from the village and on the Lenox road, and was erected at a cost of about \$4000.



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These several designs fairly illustrate the different varieties of the genus villa; and although examples might be multiplied, the accommodation afforded by them all, from the first plan to this one last described, is such as would be needed by the home-seeker of a villa in suburb or country. The cottage, the farm-house, or the larger country mansion, have peculiarities entitling them to separate consideration; and although amongst the cottage buildings many homes may be found resembling, in their arrangements, those of the small villa, and amongst the liberally planned country mansions, many that are but the villa enlarged, I hope the reader will have found the requirements explained as peculiar to each type of house, so fully to have been met as to make the classification I have given, honestly represented by the designs thus offered for homes for the American people.

PART THE SECOND.

THE MANSION.

CHAPTER V.

THE SUBURBAN AND COUNTRY MANSION, AND THE AMERICAN RESIDENCE IN NORTHERN AND SOUTHERN STATES.

Bur a few years ago, the homes of this country were, almost exclusively, either the large mansion, or the small box-shaped cottage and farm-house. The former erected by wealthy planters, by merchants drawing their wealth from the rapidly enlarging cities, or by gentlemen whose large landed possessions, and the scarcity of farm-competition, gave them, with the frugal manners of the times, the means to build upon as large a scale as their inclination led. Southern lands abound with such mansions; and through New York and the New England States plenty of them still remain to show upon how liberal a scale home-accommodation was in those days provided.

The architectural style that they possess was derived

almost entirely from European examples, and history tells of more than one wealthy family seeking an architect from across the Atlantic to design his dwell-It is known that Brunel, the celebrated engineer and architect (father of the present one of his name), came here, and was employed to design and partially superintend residences for at least one family upon the Hudson. These mansions were, but with few exceptions, erected in wood, and were large buildings in the classic style that the fashion of the age then affected. Their internal arrangements were comfortless, and their construction often showed a curious want of acquaintance with the material employed, and, although most heavily framed and timbered, had really but little strength other than that derived from the resistance of the weight of huge beams piled one upon the other. Their plan, however, gave rooms and halls upon so ample a scale that modern convenience has suggested additions and alterations within their shell, and frequently one sees such an old homestead made one of the most perfect embodiments of comfort that could be contrived, having the advantage of age in the grand old trees, well-made roads, and cultivated orchards and gardens, and of modern improvement in the house and its belongings.

It is but recently, however, that attention has been paid to the architectural style of the country mansion; as before remarked, almost invariably the classic was attempted, and the huge and clumsy Grecian temples

that now here and there remain, prove how much a model of a house better adapted to material and landscape was wanted.

There are peculiar reasons, referable to the laws relating to the transmission of property, that must always lessen the chances of large and costly private buildings being erected in the country; and it may be added that the age is too impatient to devote the proper time to the completion of places such as may be found as heir-looms in Europe; still, many a man, either of large family or of largely developed hospitable feelings, is willing to build himself a home somewhat larger than his family may need after him, knowing that in this rapidly growing community some one will be found capable of supporting such an establishment, if his own children are unwilling or unable to do so. It also may be noticed that the large mansions built at the present time are almost invariably constructed by men who have been the architects of their own fortunes, and who, having been successful in business-life, seek to consistently close their activity by entering into building operations on a scale commensurate with the magnitude of their past commercial transactions; so that, in devoting a chapter to the American mansion, I am in no degree departing from the track that the title I have chosen for this work would seem to lay down; for such buildings are as emphatically homes of the people as any of any other class of house.

A good old book, that many an architect and country gentleman might read to advantage, written by Dr. Fuller, a Prebendary of Salisbury, contains some quaintly worded aphorisms relating to house-building that are so worthy of attention as to fitly be quoted here; they were brought to my notice in one of Gwilt's valuable books, and read as follows:

"First, let not the common rooms be several, nor the several rooms common; that the common rooms should not be private or retired, as the hall, galleries, &c., which are to be open; and the chamber, closets, &c., retired and private, provided the whole house be not spent in Light (God's eldest daughter) is a principal beauty in a building; yet it shines out alike from all parts of the heavens. An east window gives the infant beams of the sun, before they are of strength to do harm, and is offensive to none but a sluggard. A south window in summer is a chimney with a fire in it, and stands in need to be screened by a curtain. In a west window the sun grows low, and ever familiar towards night in summer-time, and with more light than delight. A north window is best for butteries and cellars, where the beer will be sour because the sun smiles upon it. Thorough lights are best for rooms of entertainment, and windows on one side for dormitories.

"Secondly, as to capaciousness, a house had better be too little for a day than too big for a year; therefore houses ought to be proportioned to ordinary occasions, and not to extraordinary. It will be easier borrowing a brace of chambers of a neighbor for a night, than a bag of money for a year; therefore 'tis a vanity to proportion the receipt to an extraordinary occasion, as those do, who, by overbuilding their houses, dilapidate their lands, so that their estates are pressed to death under the weight of their house.

"Thirdly, as for strength, country houses must be substantives, able to stand of themselves, not like city buildings, supported and flanked by those of their neighbor on each side. By strength is meant, such as may resist weather and time, but not attacks; castles being out of date in England, except on the sea-coasts, &c. As for moats round houses, 'tis questionable whether the fogs that arise from the water are not more unhealthful than the defence that the water gives, countervails, or the fish brings profit.

"Fourthly, as for beauty, let not the front look asquint upon a stranger, but accost him right at his entrance. Uniformity and proportions are very pleasing to the eye; and 'tis observable that free-stone, like a fair complexion, grows old, whilst bricks keep their beauty longest.

"Fifthly, let the offices keep their due distance from the mansion-house; those are too familiar which presume to be of the same pile with it. The same may be said of stables and barns; without which a house is like a city without works, it can never hold out long. It is not only very inconvenient, but rather a blemish than a beauty to a building, to see the barns and stables too near the house; because cattle, poultry, and such like, must be kept near them, which will be an annoyance to a house. Gardens ought also to be disposed in their proper places. When God planted a garden eastward, he made to grow out of the ground every tree pleasant to the sight, and good for food. Sure he knew better what was proper for a garden than those who now-a-days only feed their eyes and starve their taste and smell."

The fourth aphorism above quoted, is very curious, and shows how the mind of the plain-speaking old dignitary was colored by the formal rules of gardening prevailing in his day. The taste of the times found favor only in those straight avenues, rectangular divisions, and direct approaches that gave gardeners employment in the days of good queen Anne, and which have been so sharply satirized by Pope. It is true, however, that the first view of a large house should be direct; that is, the approach, however prolonged or winding, should allow the building when it first starts into notice to be seen, so that its length and breadth are exhibited in true perspective opposite the eye. A dip or turn of the road, or undulation of the land may hide it again from view, and when next seen, an angular peep of the building may be got; but when at last the whole front stands out plainly confessed to the eye, the building will always appear to best advantage when approached directly at right angles to its side or entrance facade. There is an effect too much partaking of the phantasmagoria, produced upon a sensitive eye by the winding approach about a house

that allows attention to rest never for one moment upon the same view. There may be as many ways to the mansion as the size of the place permits, but each one of them should allow the glance first gained of the building to be uncontradicted till finally reaching the entrance porch. By this means, a dignity and repose is given to the aspect of the house, and in each succeeding view from a different direction, new beauties start into notice, and there is a constant changefulness of delight.

The remark as to bricks, I take to mean, only that their quiet sombre hue, like the olive skin of the brunette (to follow his own suggested comparison) shows less change from time's approaches—but there is a charm in age, and the grey locks, and wrinkled brow of beauty have a loveliness not less endearing than the bright enchantment of youth. So time-worn stone has mossy stains and broken tints upon its surface, that to most eyes are more beautiful than the first fresh brightness of the new building.

In regard to altering old houses, the same writer says, "He who alters an old house is ty'd, as a translator, to the original, and is confined to the fancy of the first builder. Such a man would be unwise to pull down a good old building, perhaps to erect a worse new one. But those who erect a new house from the ground are worthy of blame if they make it not handsome and useful, when method and confusion are both of a piece to them."

He that builds a country mansion should remember that he takes upon himself a responsibility. He not only is about to erect a house that he may enjoy with his family, and which he may not unreasonably hope his children will be able to maintain after his death; but he is about to do what may for years affect the taste of the rustic community that will naturally take their tone from him. Common sense would lead him to require a house neither too costly nor too large; and a consideration that the wealth he has reaped was only given him for a proper bestowal, should urge him to be careful that he erects what shall be a lesson in art to his neighbors. The retired merchant from the busy city, is apt to have all his proceedings watched, and it is not unnatural for those who know that his wealth has been gained by shrewdness of judgment in business matters, to suppose that the same maturity of thinking will be developed in his house and all his country undertakings -so that he will be sure to find plenty of imitators who will modestly believe that in following his example they can scarcely err.

Therefore I say, a man building a country mansion has, if he rightly views it, a grave responsibility, and his act may retard or advance the progress of truthful influences in art, more than he may, perhaps, at first thought admit.

A well designed and truthful building in a country place is a perpetual lesson, and the wealthy man that erects one does a good to the community that books and teaching cannot equal. Whilst the erection of such a building is a benefit, the construction of one in bad taste is an injury, and it may take a generation to obliterate its effects;—in this untrammelled country, it seems to me a man has no right, however widely he may own the land that surrounds it, to rear an unsightly building to mar the common enjoyment of a beautiful landscape.

The architectural style of the country mansion, whatever due submission to local circumstances would cause it to be, must be carried out fully in all parts of the external and internal details, and as from such buildings a national architecture is in time, I think, to come, it is worth while to consider how forcibly the principles, before laid down in this volume, apply in determining the character and expression of the building under contemplation.

As regards materials—many advisers say—never erect other than a stone house when building on a large scale in the country; and yet am not sure that there are not reasons to urge for the employment of a more easily obtained material. Frame buildings, properly constructed, will endure more than one generation, and is there not a reason in the doubtfulness of stability of residence in present country places that might lead to hesitate, whether the time for expression of a style, and provision of a home in so permanent a material as stone has as yet fully come? When this material is readily at hand, it is, of course, at all times

the preferable substance, but as such is not always the case, it were surely better to erect a frame house, and make it an object of beauty of form, so that the principles of style and proportion could be taught by it, and a knowledge gained that would be valuable when the more durable material, in the future history, came into commoner use.

It will be found, moreover, that in nearly all the stone buildings of large size in the country, all that gives them architectural character is in wood; to make such features of cut stone is too costly, to omit them would leave the edifice too plain; and so an architect has either to descend to a vulgar imitation, and use a material which, by paint and sand, he may disguise into semblance of a material that the slightest examination will prove it not to be-or he must content himself with only those effects of broad masses, and of proportion, to give beauty to his building. It is true that the latter beauty is one of true value, and cannot too often be sought; but it is also true that working out ideas only in such a manner will result but very slowly in the improvement of a nation's country architecture. In building of stone that will not permit other than the walls to be constructed, and compels use either of stone of a finer quality, or material of a different character for the architectural details, the only legitimate adornment must be of those parts formed of wood, such as roofs, verandas, porch, canopies of windows, and the windows themselves; and by such a treatment of the plan that will give the desired play of light and shade to the mass of building, so that the enriched portions may have a background, and the whole structure be relieved from sombreness of effect, such as undecorated finish of the rough stone would result in.

Any one of the designs that follow in this chapter could be executed in stone—one of them is especially intended for this material; and the others will show upon examination that there are only portions of detail that would require a change in finishing, in case stone instead of brick or timber was decided to be used.

The first principle upon which beauty depends in the design of a large private dwelling in the country, is unity of effect. This is obtained when the leading parts are so arranged that the attention is successively struck by them in gradation, from the most essential to the least important feature. The general idea of the whole mass should be understood at once, and a more intimate acquaintance with its parts should never lead the mind away once from the whole image first received. This is not done by making all one bold and tame outline, but simply by giving each portion of the building just exactly that same importance in architectural effect as common sense would assign to it in use. A building is, in fact, as it were a human body; its parts are all dependent one upon the other, and progressive in degree, and yet they are members of one united whole-imperfect if one be removed or not fully developed. There is no axiom in art more imperative, than

that unity of design is essential to magnificence, and to preserve it, the inferior parts should not form independent compositions.

Another axiom is of singular significance. Unity, without variety, produces ununiformity and insipidity. From variety, without unity, result confusion and distraction.

There are laws that govern all the effects produced by form, which it would be well could they be more commonly known, for can it be supposed by any reader who has ever bestowed a thought upon the subject, that beauty of form, or gracefulness of proportion, even in a moulding, depends upon chance? Some law, known or unknown, rules each. The first law is in the instant conviction of fitness of form to use intended. Hence the universal appeal of the Grecian column—no form could be conceived to support a weight of superstructure so exactly fitted; no outline so softly beautiful, nor construction more strong. The second is in the satisfied feeling, that decoration, where introduced, is absolutely essential, and with these two simple rules to guide one, a man may venture to trust his judgment in art criticism with certainty of success. Not that the source of all beauty can be defined in so off-hand a manner, but so very much of it in a building may be, that were I to be left but two principles to guide me, I would securely cling to these-fitness in form, propriety in ornamentation!

It is so true that these laws, carried out in their broad-

est bearing, would almost suffice to regulate the attempts to attain beauty in a building, I shall not carry the reader further in an essay upon the definitions deducible from them; an architectural guide-book, though much needed (and now in course of preparation by me), is not the object of this volume, and so with these quotations from one or two old writers, I will close these general remarks.

Milizia says, "The ancients accomplished grand works, as in their temples, by attending to the one great purpose of producing a grand impression at the first glance of a building. They knew not affectation or pedantry. But the moderns are over-scrupulous in minutiæ, lose themselves in littlenesses, and consequently too often only accomplish little things without beauty."

As all our rules of art are really derived from examination of the works of those who have gone before us, it is worth while to add, in the words of another writer, how the buildings of the ancients should really be considered:

"It is desirable to have the authority of the ancients; but it is not conclusive. Still we must begin by observing what has already pleased, if we wish to judge rightly as to what will please in any future production." "To go back to antiquity is one thing—to look back to it, another." And, in reference to modern architecture as springing out of the principles that have caused results so grand before, "The principles of a science are

always those which are learned last. A full, clear, and commortable grasp of those fundamental notions, on which a science is founded, is only attained after a long course of intimacy with the working of the details." (See works of Colton, Woods, and the "Mechanics' Magazine," for April, 1847.)

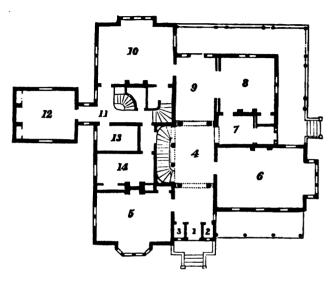
A villa-mansion was erected by me, a year ago, in the Italian style, which may serve to illustrate the class of house which, under certain requirements, would be fitting for erection elsewhere.

The situation for which my services were required to design an appropriate building, was one which, although possessing some peculiar features, had a character not unfrequently to be met with. The land was elevated, commanding a most extensive view across Long Island Sound, and the intervening and surrounding landscape. It was removed about two miles from the water, and at the same distance from the village. A public road skirted the upper boundary of the place, and the surface of the land and general disposition of various portions of the estate required that the building should be somewhat near to the road. From this road the land rose upwards in a gentle slope to a nearly level table, just large enough for the building, and on the other side it dipped down at an angle so abrupt as to

render terracing necessary, and to cause the foundation walls at that point to be of considerable height, so that the rear aspect of the lower portion of the house became so open and airy as to suggest a convenient and pleasant bestowal of the kitchen and domestic offices in the lowest floor, which, as it is entirely above ground, so far as used for such a purpose, can hardly be called a basement.

The most cheerfully shone upon sides, and those from which the most desirable points of view of the landscape could be enjoyed, proved to be the rear and side; the front looking towards a comparatively flat expanse of meadow and woodland beyond the road, and the other side having a northern exposure.

The owner required rooms of large size for entertainment and adequate accommodation for the family, also a preference was expressed for ample hall and passage ways—so arranged, however, in summer time or for evening occupancy, as to be converted as it were into inner apartments. A summer kitchen was also thought desirable, and so with these requirements to guide me, and the knowledge of local circumstances gained by careful and frequent study upon the spot, the plan of the principal floor shaped itself as follows.



PL XXXVII.-THE VILLA-MANSION-PLAN OF PRINCIPAL FLOOR.

(The reader will please remark that the scale to which all the plans in this chapter are drawn, is smaller than that which has been employed before, in order to accommodate the enlarged size of the buildings within the limits of the page. Their scale is one-thirtieth of an inch to the foot, that is an inch represents thirty feet. The previous drawings have been to a scale of one inch to twenty feet.)

In front a terrace, a few steps in height, leads to the door of the entrance vestibule, No. 1, in which are inner doors to the principal hall. One pair of doors is filled in with a perforated metal panel, to admit air in

summer, and is furnished with a close shutter to fit in during cold weather. Upon each side of the vestibule are hall closets, 2 and 3, with sash-doors towards the hall.

The main hall, No. 4, is of magnificent proportions and extent, and in it is a deep recess for the principal staircase, connected with the hall by columns and antæ, which correspond with the other columns in the hall shown upon the plan.

On the left of the hall, in front, is the library, No. 5, a room twenty-four feet by fifteen, lighted by a window towards the north, and by a projecting bay in front. Connected with this room is a fire-proof closet or safe, by the side of which is an inclosure containing a dumb-waiter, which conducts from the floor below to the attic, and is used to convey clothes from the laundry to the drying-room.

Upon the other side of the hall is the drawing-room, No. 6, which is, exclusive of the projecting window, twenty-seven feet by twenty, and the projecting window ten by six.

Next to this room is a small salon or vestibule, No. 7, from which a French window opens on to the side veranda, and which also connects with the family sitting-room or parlor, No. 8. This later room is seventeen feet square, and is so situated as to be the pleasantest apartment upon this floor. A wide veranda stretches on two of its sides, and connecting with it are large closets for family use.

Sliding doors open upon one side into the vestibule, 9, at the end of the principal hall, which terminates in double doors leading to the veranda.

Next to this end of the hall is the dining-room No. 10, which is twenty-four by eighteen, having in its long side a projecting window, which is supported upon brackets from below and overhangs the deep stone wall that the slope of the ground renders necessary. Immediately under this room is the kitchen, and the projection of this bay window serves as a canopy to its windows.

In the rear of the dining-room is a private hall, No. 11, in which are a flight of stairs to the floor below, a servants' stairway to the chambers, a large china-closet, and a dumb-waiter for transmission of dishes from below. The smallness of the scale renders these portions somewhat minute, but they are all of ample size and convenient arrangement.

From this hall an entry leads to a summer-kitchen, No. 12, which is fifteen by nineteen, and so placed as, though sufficiently removed from the main building to prevent heat or odor penetrating the interior, is conveniently near for use.

On the other side of the private hall are a large pantry and store-room, No. 13, a lobby conducting to the main hall, and a sleeping-room of large size, No. 14, either for use of a man-servant or of a member of the family.

The extent of front of this building, exclusive of the

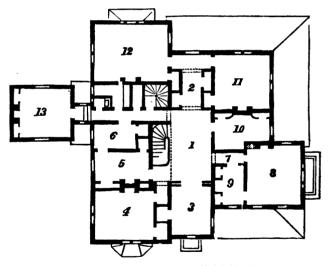
projection containing summer-kitchen, is sixty-six feet, and its greatest depth, from front line to end of dining-room, is sixty-nine feet two inches.

The spacious verandas that fill up the outlines of the plan, so as to make them nearly a square, are of great value. From that surrounding the two sides in the rear the most lovely view that can be conceived is enjoyable; and, as the level of the ground falls away so rapidly, it is on the rear greatly above the surface, and descent to the terrace and gardens below is by a flight of broad steps. Beneath these rear verandas a screen protects the offices from sight, and upon this side a conservatory is formed, with glass in front and at the end.

The space below is occupied by a large kitchen under the dining-room provided with a range and boiler, an old-fashioned brick oven, and a large open fire-place for roasting. There is also a laundry beneath the family parlor, and, in the rear of that, a bathing-room for use of the servants. Spacious provision is made for the furnace, which is below the vestibule, No. 7, and the rest of the space is filled with store-rooms, cellars, milk-room, larder, &c.; all carefully arranged and of liberal size. Below the summer-kitchen is the coal-cellar, and, under the entry that leads to it, space is left for a retired inclosure containing a water-closet for the servants.

The plan of the whole building is one affording absolute perfection of convenience, and the effect upon entering is exceedingly imposing. The wide and lofty hall, relieved by the columns that divide its length, and

by those separating the recess that contains the principal staircase, is a feature that is carried out in a manner not often seen, and at the same time the rooms are so disposed about it as to make its ample dimensions to involve no loss of space, but rather to afford an increased scale of internal accommodation. Few houses afford so liberal and yet so controllable a scale of accommodation; and the chamber floor is equally generous in its arrangements.



PL. XXXVIII.—THE VILLA-MANSION—PLAN OF CHAMBER FLOOR.

The staircase opens into a large central hall, the side of which, towards the stairs, is composed of pedestals supporting three shafts with arches between, the handrail and balusters being returned around the wall of the staircase behind this arcade, the purpose of which is to support the floor above. This portion of the hall is eighteen by twenty-two, and at one end an open arch leads into a narrow vestibule terminated by a window overlooking the rear balcony, and, at the other, sliding doors shut off a chamber over the front portion of the hall, which can be used or not, as may be required. These are designated upon the plan by the figures 1, 2, and 3, the latter being the chamber referred to, which is twelve feet wide and fifteen long, opens upon a balcony over the front terrace, and has a large closet fitted with drawers and shelves upon one side.

Near to this is a large bed-room, No. 4, over the library, having a closet similarly fitted to that of No. 3, and in the rear of this is a bed-room, No. 5, and a dressing-room or single chamber connecting with it No. 6.

Upon the other side of the hall is an entry, No. 7, leading to a sleeping-room and dressing-room, Nos. 8 and 9, occupying the space above the drawing-room, and in the rear of these is No. 10, a chamber thirteen by seventeen, over the ante-chamber below, and shaped so as to make a large recess to contain the bed.

No. 11 is a cheerful room, the same size as the family sitting-room, and provided with large closet and convenience for drawers.

In the hall or entry, No. 2, are spacious cedar and other closets for linen and for clothes not in use, and

from this hall a noble room, No. 12, the same dimensions as the dining-room, is reached.

From the main hall a passage leads to the private stairs, also to a bathing-room and two water-closets, one of which is entirely private from the bath-room. Beyond this is a sleeping-room, No. 13, over the summer-kitchen, to gain which a few steps are descended in a well-lighted entry.

All of these rooms are of large size, have fireplaces, abundant closet accommodation, and are so arranged as to door or window openings as to afford convenient places for the bed and requisite chamber furniture—a matter of no trifling value.

Upon the floor above, the roofs are carried up in such a manner as to make attics over the drawing-room, and the whole of the rest of the house excepting the lower portion above the family sitting-room and the summer-kitchen.

In addition to this a tower is extended a clear story above the roofs, and is placed at the end of the hall, and as the external view of the building sufficiently exemplifies the position of this feature, and the space contained in the attic, a plan is not thought necessary.

The whole of the room above the drawing-room portion of the building, a space nearly forty feet in length by twenty in width, and six feet high upon the walls, rising, however, with an arched ceiling, to considerable elevation in the centre, is made a drying-room for linen, is warmed by the heating apparatus below,

and is made conveniently accessible by a dumb-waiter or lift, which is constructed in an inclosed shaft that runs from this story to the basement or kitchen floor below.

There is a very large reservoir or water cistern also upon this floor, placed over where the bath-room and private hall are arranged in the chamber floor below. This cistern is so supported by the brick-work of the chimney-shaft, and by its position in regard to the frame of the building, as to be exposed to no danger from its weight; whilst to prevent accident in winter, it is entirely surrounded by passages, so as not to come in contact with the outer walls, and has a hot-water pipe coiled within it, through which a circulation from the boiler below would keep the water at such a temperature as to prevent action of frost. This reservoir is fed not only from the roofs, but also, in case of failure from such a source, can be supplied by a force-pump connecting with the large cisterns that are constructed below, and from this, pipes distribute the water, both cold and heated, to all portions of the house.

There are upon this floor four large sleeping-rooms for servants, and a room of noble size above the chamber over dining-room, to be occupied either as a sleepingroom or children's play-room, as the family may prefer.

There is also a small room, about nine feet by twelve, in the tower, which, I believe, has been bespoken as a sleeping-room by a member of the family that appreciates the magnificent scenery that its windows com-

mand; and again, above this, is the upper room or observatory in the tower, twelve feet square, the space taken from the room below to contain the stairway to this upper room, being nearly all available therein. No description can do justice to the grandeur of the land and marine view that this tower commands, and not only is the presence of this feature amply justified, but the indweller or casual visitor would pronounce the house incomplete without its provision, which, by the way, cannot be said of all the towers that are seen in modern villas.

The whole interior effect has been obtained by elegant proportion and somewhat simple finishing, rather than by extravagant outlay. In the drawing-room and other apartments upon the principal floor, the cornices and ceiling decoration show somewhat of ornamental finish, but the rooms are so justly proportioned-height to width and length—that they could safely be left to the effect of a less ornate embellishment. The hall, however, has features of very great beauty in the columns that have been before spoken of. There are, in all, six of these, with their antæ. Those supporting the wall above the recess containing the principal staircase are of Brocatelle marble; the other four across the hall itself, at right angles to these, are of Sienna, the caps white and the base and plinth of statuary marble. Their style is Ionic, with capitals designed in the simplest form of this beautiful order.

The staircase, with its balusters and rail, is massive

and handsome, and the steps of peculiarly easy ascent.

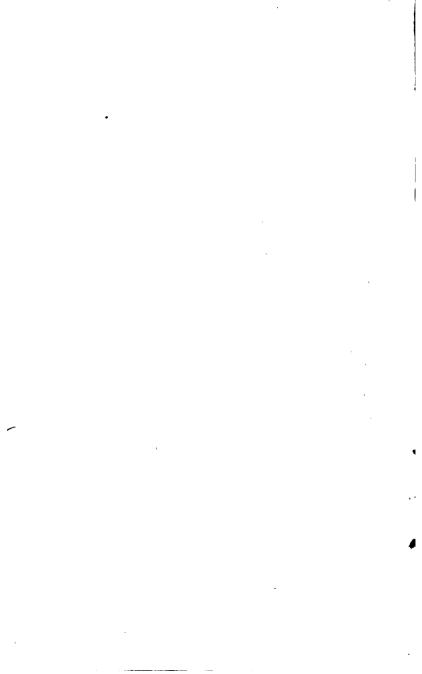
The view that illustrates this building, whilst it gives the best idea of the whole house, does not bring out the striking peculiarity of its situation so well as one taken from a point below the terrace, which would permit the bold rise of the campanile and the true convenience of the arrangement that allowed the kitchens and offices to be placed as they are to be seen. However, the reader who may chance to have occasion to travel to or from New York by the New Haven railroad, may at any time see this villa-mansion from such a point, as it stands upon an eminence that suddenly starts into view just after the train has passed the depot at Rye, and is upon the left-hand side of the read going eastward, being about midway between Rye and Portchester.

Although the building is large, the composition of its parts is such as not to give an ostentatious appearance; and the details are all carried out so consistently with the spirit of the style determined upon, that the general effect of the whole mass is not hazarded by any discrepancy in any portion of the construction.

The architectural style is that of the modern Italian, having a general resemblance to many of the peculiarities of the buildings erected in the suburbs of Rome—and hence of the Roman rather than of the Florentine or Venetian periods. (See Frontispiece.) I do not claim that it is a facsimile of any one of them; but, so far as material would permit, and modern convenience

A VILLA MANSION. FRONTISPIECE.

See Page 206.



and common sense justify, the whole has been faithfully conceived in a spirit analogous to that which gives vitality to the buildings that originated this style; and it will be found greatly to differ in its working out to the other Italian designs presently following in this chapter, which are embodiments of different periods of the style. The walls, from the foundation to the level of the principal floor, are built of stone, and are laid in regular courses as to their horizontal lines, but in stones of unequal sizes and divisions. The masonry is of the very best description, and, from the top springs the building which above the ground is of frame, filled in with brick, double-boarded on the outside and covered with clapboards, the edges of the overlap of which are rounded, by which means they are not liable to be bruised or otherwise defaced. The stone placed within reach of the builder was one of such extreme hardness as to render the construction of the entire building a matter of very great expense, nor could the architectural features have been executed but in stone of different texture; and it may be added that the owner was neither willing to delay completion of his house the time such a mode of construction would have required, nor to expend the vastly increased amount that would have been demanded.

In situations where stone of good quality, and easily worked, is at hand, a home-seeker, who may in this design find the embodiment of his own requirements, will have no difficulty in carrying it out in such material, as the architectural details are all simple, and the most effective features, such as bracketed cornices of roofs and the upper story of the campanile, can legitimately be formed of wood. This house was built carefully by day's work, and its cost, including all that thorough completion involved, was twenty thousand dollars. Of this sum, a very large amount was expended upon the heavy stone masonry of the foundations and lower story, and in almost any other situation the cost could very materially be lessened. The sum named, moreover, included furnace, painting, plumbing, and the provision of gas-pipes throughout the whole building, the owner intending to provide a gas-house and apparatus in a secluded situation below the house.

In the rear of this mansion a heavy stone wall of rough masonry, the stone in large bowlders and blocks in their nearly natural state, has been built, forming a level terrace, and below this a second wall is built at a considerable distance, leaving a level plot for garden purposes. Beyond, and at either side of this terrace, the land dips up and down in richly tree-graced undulations, and far in the distance is the bold stretch of the coast and Sound.

Near the building is an ice-house, and tool-room, and workshop, and upon the other side are the stables, carriage-house, and men-servants' rooms. Further away, and partially concealed by trees, is the barn with farm stables, the estate being sufficiently large to require all the holdings of a country farm. All these buildings

are in a style corresponding with the house, and when the flower-gardens, winding walks, green-houses, and other features of a gentleman's country seat shall have been completed, few places will be found to afford a better example of an American villa-mansion.

The tower, which in this villa is of great height from the ground, as seen from the lower side of the building, is always an important feature, when fitly introduced, in a design, when, if not of very large size, it should be attached either at a corner of the building, so as to be an independent member, or else so connected with the rest of the house as to form a termination, as it were, to some main feature. In this case it occupies the latter position, as it stands in the angle formed by the projection of the dining-room from the central body of the house, and as the roofs are lower to the latter, and the main building containing the dining-room, finishes in a pediment of considerable breadth, and of superior height, the tower stands in connection with it, as if flanking this portion, and has as its background and means of connection with the remainder of the building, the lower block containing family-room and chamber over.

Where of large diameter, it should occupy the centre of a composition, and the whole effect be subordinate to it, each portion of the composition rising progressively in importance, and producing as a result that pyramidal outline, which, in a large and irregular building, is one of absolute beauty. In the next design an example will be seen of such an arrangement.

As the upper story of such towers is seen at all times, and is apt to be viewed from points of sight that may conceal the rest of the building from which it starts, its finish should be rich, and as much decoration is allowable as a consistent employment of the embellishments introduced in other parts of the building will permit. It is a canon of art that compels this—the parts seen independently should be most richly wrought; the parts nearest the eye most highly and minutely finished. Ancient buildings, now serving as models for imitation and examples of perfect beauty, invariably followed this law; hence the glorious cornices of Greece, and the rich and noble cornice and roof embellishments of middle ages in Italy and Europe generally. Doorways and lower windows were elaborately finished, and minuteness of detail elaborated to almost painful completeness; but the forms were simple, and the eye only called to their wonderful beauty when quite close to them. But above, the cornice and the upper story of the campanile glowed in utmost variety of play of outline-parts were multiplied, and surfaces broken up, and all tied together by a proper arrangement and unity that impressed, at first glance, as much as examination of its portions, bit by bit, charmed. And yet climb a ladder, and behold these enrichments are most broadly and almost uncouthly wrought. So should be the way now-many an embellishment that looks so trim and smooth, and richly finished in the workshop, fails of impressive effect when reared to its proper height to

crown a building, and the workmen wonder how their enrichments, which attracted so much attention below, appear so tame and seem so flat when aloft. No doubt, the reader has been struck with many such cases, and to fitly close these remarks, I offer for his perusal the story of "Phidias and Alcamenes," two Grecian sculptors; for in those days sculptors were employed always to adorn the constructions of the architect, and work with him hand in hand. The story is told by Blondel, in his Cours d'Architecture, and is taken by him from the Chyliades of Tzetzes, a Greek poet.

"These two sculptors," he says, "lived at the same time, with reputation, at Athens. Alcamenes belonged to those who, with but mediocre merit, made a great deal of noise; spending the greater portion of his time in paying his court to the people, and in looking out for intriguing friends who might cry up his works; which is a very good way of making one's self a reputation, and acquiring wealth. Howbeit, such people often behold their fame die out, even during their life. Phidias, on the contrary, passed his whole time in the study of his art, and in that of optics and geometry, which sciences he considered necessary to the attainment of perfection. He courted no one, and esteemed himself happy in the approbation of a few well-informed persons, whom his merit had made his friends. Which is," adds the author, "a sure way of being poor during one's

life, and of being rich in glory and immortal reputation after one's death.

"Well, these two masters received orders, at the same time, to set to work on two statues, which the people of Athens wished to set up on lofty pillars erected by them before the Temple of Minerva. Alcamenes wrought his statue with all possible delicacy, finishing off to the eye the whole work to the minutest feature; a proceeding which gave exceeding pleasure to the people, and increased infinitely the reputation of the sculptor. But Phidias, who, by the knowledge he had of optics, knew the effect which his figure ought to produce when it was raised to the place for which it was intended, made the face thereof of a monstrous width, the eyes staring horribly, the nostrils swollen, the mouth a gash; setting only strong and deep marks in the marble in those places where he wished his work to appear most delicate, without finishing or softening off any part; giving, in fine, to his statue a countenance capable of striking terror into the beholder. When people saw this, it drew down first their merriment, but at last their anger; so that they would have stoned both him and his work, if he had not had recourse to entreaties, promising to do his best to correct it. From that time he kept the figure enveloped, feigning to be engaged in retouching it; nor would he allow any person to see it. Nor even, after it had been set up on the pillar, would he permit the veil to be removed, until the statue of his

competitor had been likewise placed. When this was done, and he had uncovered his work, the people, in despite of their envy, could not help admiring the capacity of Phidias, or giving him the praise and approbation he merited, while they expressed contempt for the statue of Alcamenes. 'And, in fact,' says Tzetzes, 'nothing remained of the fine chiselling and meretricious coloring of the figure of Alcamenes, which appeared scarcely more than a straight trunk, without form or art; whilst in that of Phidias, with its deep strong lines, those parts which, seen close, appeared so irregular and uncombined to the eyes of the spectator, fell into parts so just, so delicate, and well-proportioned, in their remoteness, that one could gaze at the statue for ever." I often think of this true and suggestive little story, when a workman or client is in doubt as to the propriety of putting in hand the sharply-marked and comparatively unfinished brackets or other ornamentation designed for a lofty roof or campanile; whilst many a joke has been made at my expense till the details have been put in their proper places, and then the joke is generally on the other side.

Other situations demanding the kitchen and domestic offices to be upon the same floor as the principal rooms, would find a suitable design for erection in the house now to be described. The locality for which it was contrived possesses scenic features entirely different in character, and the surface of the ground, although most grandly upheaved and lowered by the mountains and valleys around, was so level immediately about the house as to permit a wide stretch of plan upon every side, and the provision of all the parts of a building which country house-keeping renders convenient.

Families selecting homes in the country are usually influenced very much by the beauty of the surrounding scenery, and whether for whole year or only summer residence, generally erect the building with regard to the landscape. In fact, so numerous have become the seekers of homesteads in the country, that it has become almost a business to administer to their wants, and farmers and others who own land possessing desirable building sites, are not slow in making their advantages known, nor backward in asking a fancy price for them. One family of wealth settling in a country place draws many more about them, and it is curious to see the influence of outside taste thus brought into contact with the quiet fancies of the rural neighborhood. Where the manners of the new-comer are such as to engender mutual good feeling, an incredible amount of benefit may be derived from the intercourse thus brought about between those who have lived but little beyond their own homes, and these citizens of the world. Even the experimental blunders and the costly processes by which very simple results are sometimes attained,

which are apt to mark the first efforts of a new-comer, who has a fancy for improvements, have a beneficial influence—many new ideas are started and hints suggested, whilst a large community find employment and country business receives a new impetus. Here and there a man stultifies himself by embodying in his house and belongings an ostentatious parade, but, on the whole, this country can point with very honest pride to the newly-founded country mansions of its successful men of business. Even when little possessing architectural grandeur or beauty, they as seldom show haughty seclusion or ostentatious display, and frequently have little but their size to distinguish them from the homes of the farmers around.

The true American country mansion should be situated on a farm, and yet not be a farm-house. The buildings, such as barns, grist-mills, farmer's house, and cottages, should be separately provided, and so situated as not to interfere with the home enjoyment and partial seclusion of the lawn and pleasure gardens. Upon extensive lands the mansion should be seated in such a central position as not only to have a wide range of prospect before it, but to scan the whole length and breadth of the place, and keep a master's eye around. Shelter for the building must with this be sought; the summit of a hill has an exposure too bleak; a dead flat, a landscape too limited; so the house should stand either upon the rise of some gentle undulation that is shielded by woods or higher ground, or be upon the

long slope of a hill, the upper range of which serves to protect from cold.

A large building should be removed from the eye, and the lawn or meadows in front rise towards it, so as to make a base for the building, and lead attention gradually to its well-adjusted proportions, so it should not stand too near the public road, but rather have the farm buildings between the road and it. These latter so placed, however, as not to be necessarily exposed to view in approaching the mansion from within the entrance gates, although if local reasons, such as better convenience of access or healthy exposure, incline the owner to make them near the entrance, I can see no objection in so doing, nor any necessity to attempt disguise. They may be, and should be sheltered by trees, and the farm-buildings may be so grouped as to present their most attractive features towards the eye-the yards and cattle inclosures being, perhaps, on the other side. In fact, farming operations, properly conducted, and with the carefulness and neatness that they should have to make them perfectly successful, are anything but unsightly, and a gentleman, whose taste and knowledge has resulted in obtaining a farm, whose every features are carefully finished, will find so much to take honest pride in-he will not care to keep them entirely from view.

So upon a farm where the cattle-yard, or poultry inclosure, or summer run for colts, are well worth seeing, the carriage drive may skirt in its windings within view of them, and the visitor get a good idea of the comfort awaiting him within a mansion, the farm-belongings to which are so sedulously and neatly cared for.

But this attention to rural pursuits is not all the country mansion should suggest. Life in the great world has enlarged the ideas, and made liberal the feelings of the home-founder-refinements of the city, and improvements of travel have made him careful, not only for the country life he is to lead, but for the comforts of the town manners he has left. If of literary tastes, his library will be a favorite feature in the plan he contemplates, and his leisure hours for its enjoyment more accurately defined, and less interrupted than in the busy city. If fond of social life, and the gathering together of friendly faces about him, the cheerful parlors and many bed-rooms of his hospitable mansion are thought of first. Or his travel or his natural tastes may have led to the gradual accumulation of paintings and other works of art, which, when gathered together, perhaps assume a bulk so large as to render a room for their proper bestowal necessary. In almost every such house that I have been called upon to design, the provision of some such room has been thought of; and either the halls have been made large, or the various rooms have contributed wall and table space for the reception of such matters, or a separate room has been incorporated in the plan. In the villa-mansion last described, the owner has a plan for the ultimate addition of such a room, and the mansion presently following has a large picture gallery, occupying an important position in the house.

The country mansion that is described in the following pages is adapted for situation in an estate of considerable size, and from the windows of which, upon every side, desirable points of view are attainable in the landscape without. It supposes all the buildings requisite for farm-life to be provided elsewhere upon the grounds, the home proper being merely for residence of the family, with, however, as will be seen, the plan arranged in such a manner as to permit, in winter-time, a portion to be converted into a dwelling for the use of the farmer's, or other trustworthy family, to occupy the house during the absence of the owner, should his family not reside in it during the winter months.

The general plan of the principal floor shows an arrangement entirely different to the villa-mansion last described. The situation for which it has been designed requires greater concentration, and less draught through the building, by means of halls and ante-rooms. To maintain a pleasant temperature in winter, the rooms are brought nearer together, and the hall is within the centre of the house.

The divisions of the plan (which is to the same scale as the last, namely, thirty feet to one inch) are as follows:

The level of the principal floor is raised about three



PL. XL.-COUNTRY MANSION-PRINCIPAL FLOOR.

feet from the surface of the ground, and the entrance porch, No. 1, is reached by a broad flight of marble steps leading on to a platform, which connects with a balcony or terrace that extends before the windows of the drawing-room, and is terminated at the end by steps to the ground. All of these are floored with marble, and the supports are of stone.

The outer door leads from this porch into a vestibule, No. 2, which is floored with tesselated marble, and has

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tainment, that it is a valuable addition to the house and a place of general resort for the family. This room is forty-six feet long, twenty-six feet wide, and twenty-four high. It is lighted entirely from above, and has no rooms over it.

The end of this picture-gallery is recessed so as to form a garden seat, the view from which is one of the loveliest that can be imagined, and near the end of the room is a long and narrow door the entire height of the side, fitted tightly to the opening, and so made that, in case of fire, a very valuable and well-known picture that is destined to grace the wall space at the end of this room, can be taken out of the building at a moment's notice, the picture resting on a slide-way and carriage, and in case of accident occurring, the outer door is made to fall down, and upon its inner face an iron tram-way is fixed, upon which the picture, frame, carriage, and all-would be rapidly run outside the building. Wide doors connect the other end of the picture-gallery with the central hall, and these doors are intended generally to be left open. From the side a single door conducts into an entry, No. 8, open towards the vestibule at the end of the central hall. and giving access to the dining-room, No. 9. This dining-room is twenty-five feet six inches by nineteen feet. Upon one side is a large embayed window; at the one end a window of similar finish to that corresponding with it in the drawing-room, also opening to a veranda, and at the other a recess for the sideboard. In the rear

of the dining-room is a large china closet, with a door to the entry, and a window towards the butler's pantry and serving-room, No. 10, which leads from the dining-room into the kitchen.

Again, returning to the entrance hall, upon the other side is the library, No. 11, a very pleasant apartment, twenty-one feet by nineteen feet six, one side of which is sheltered by a veranda, and the other has its window opening on to a small balcony in front.

In the rear of this room, the entrance to it protected by the overhanging landing of the principal flight of stairs, is a sleeping-room, No. 12, a cheerfully placed and large apartment, twenty-one feet six by seventeen. A window at the side opens on to the end of the veranda that extends across the library, and at the other one conducts on to a private gallery, roofed over and secluded, which leads to the offices, and looks towards the garden.

Connected with this chamber is a private dressingroom, No. 13, containing bathing tub, water-closet, and wash-stand, all supplied with hot and cold water, and every convenience in the way of closets, and fitted drawers and clothes-press.

To this point the main hall extends, and the door that shuts the vestibule leading from the central hall, from the passage conducting to the domestic offices, completely isolates the family from them, and in winter time only that portion of the building that now remains to be described, need be occupied.

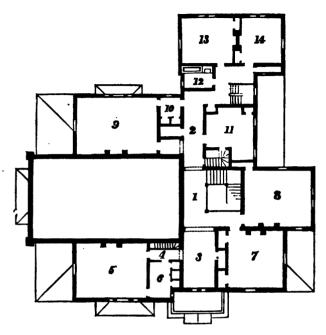
This passage, marked 14 upon the plan, has a door leading to a water-closet, No. 15, in a retired situation, and in the entry to it is a wash-stand. From this passage a door also leads into a small office, No. 16, or business-room, for the use of the gentlemen of the house, in which his business connected with the farm could be transacted, and from which a second door leads into a hall communicating with the gallery before spoken of.

In this hall is the private staircase, leading to the cellar, and also to the floors above, and it intersects with the passage conducting from the main hall to the kitchen: 17 is this staircase hall, and 18 the kitchen. This room is nineteen feet square, and contains a large metropolitan range and open fireplace, as also closets. and a recess filled with drawers and shelves. In the building containing the kitchen and other offices, is a room for baking, No. 19, provided with an oven, and also having in it a large copper boiler connected with the kitchen range. Near to this is a larder, and beside it a well or hoist-way, fitted with a dumb-waiter that ascends to the attic floor, and extends to the cellar below. Also in this portion of the house is a scullery or sink-room, No. 20, connecting with the kitchen, and having an outer door on to a protected platform, leading into a covered way that conducts to the garden, and upon which a door opens into an outer water-closet, for the use of the female servants.

Remarking that there is in the back hall a large

closet in the rear of the china-closet, for depositing fishing-rods, whips, &c., which, from its nearness to the back door, made it conveniently placed, and that the butler's pantry contains at one end a private closet, made as strong as heavy plank and iron lining can make it, for the preservation of plate—the arrangements of this floor have been briefly described, and will be found to comprise all the desirable features of a country mansion of large size.

Below this floor is a light and airy cellar, seven feet high in the clear. Under the kitchen is the laundry, and below the private office and the dressing-rooms are lock-up store-rooms. The rest of the space is devoted to vegetable and root cellars, to the reception of coals, wood, milk-rooms, large ice-closet, and to such other convenient purposes as the large size and airy lightness might in use suggest. There are two furnaces, each of these sunk in an area, two feet or more below the floor of the cellar, and placed near the centre of the building. These are each of the Chilson pattern, one of them for coal, and the other manufactured by Mr. Boynton (one of the firm of Chilson & Co.), for wood, and so arranged that either or both can be used to warm the building as severity of cold may require. The plumbing arrangements are very complete, and the water is brought by an aqueduct upon the estate, and conducted to all parts of the building.



PL XLI .- COUNTRY MANSION-CHAMBER FLOOR.

The floor above the principal story is divided so as to leave large rooms, and is apportioned in the following manner:

The principal staircase lands upon the floor of a large hall, No. 1, the same size as that below, and above this the ceiling is extended to a great height, the whole space of the tower being left open, this feature gives a grandeur and airiness to this portion of the building that are very effective, and at the height of about twelve feet from this floor, a platform is extended out from one side, supported upon a heavy truss, and from this a stairway leads right and left to a gallery, which surrounds the inner walls of the tower, and gives an opportunity of enjoying the view from the upper windows of the tower, shown upon the external representation of this building. From this hall an open arch conducts into a passage, from which a flight of stairs are shown upon the plan, No. 2, and which lead to the platform, and thence to the gallery referred to.

In front, a passage, No. 3, ten feet wide is terminated by a large and cheerful window, and from it the lawn with fountain is overlooked below, from this an entry, 4, leads into a large chamber, No. 5, twenty-four by nineteen, and connected with it is a dressing-room, No. 6, well furnished with closets and drawers, and lighted by a side window in the projecting outer wall, so as not to mar the symmetry of the front. In this entry is an inclosed stairway leading to a spacious room, the entire size of the portion of the building above, which could be divided into smaller rooms if requisite, and is six feet high upon the walls and of ample elevation for such purpose in the centre of the ceiling, which follows the slope of the roof.

Upon the other side of this passage is a chamber, No. 7, above the library, and is entered from the central hall.

The chamber above that on the lower floor may, if wished, be made a billiard room, as its size and situa-

tion fit it for such use; it is marked 8 upon the plan, has a large closet attached to it, and is twenty-one feet six inches by seventeen.

Passing along the rear passage, No. 2, upon one side is a large chamber, No. 9, the same size as the diningroom, over which it is placed, and connected with it is a dressing-room, No. 10, furnished with every convenience. In this passage is also a large store or linen-closet, and upon the other side is a chamber, No. 11, which has closets, and a recess for the bed, and is fifteen feet six inches by fourteen feet three inches.

The end of this passage opens into an open hall, containing the flight of private stairs from below, which is also continued to the attic overhead. In this hall is a sink for the use of the housemaid, and from it doors lead to a bathing-room and water-closet, No. 12, and two large chambers, 13 and 14. The space next to the latter is occupied by a closet, and in the end of it is the liftway before spoken of.

Upon the floor above are three large bed-rooms immediately over 11, 13, and 14, and one of smaller size above the bathing-room. A passage also leads to the landing before spoken of, that contains the landing overhanging in the tower, and, above the chamber and dressing-room, over the dining-room, is a very large room appropriated as a drying-place for clothes, for use of which the liftway is designed.

It will be noticed that the picture-gallery extends the height of two stories, and the observer will remark that, if wished, a small gallery could be supported upon brackets, the floor of it being level with that of the hall of the second story, from the centre of which a door could be made to lead, so that the view of the picture-room could be enjoyed at times from above.

In the interior a right simplicity of finish has been preserved, and the cornices, door, and window casings made of few members and bold design; all minuteness of decoration being left to the pencil of the frescopainter, should the owner, in time, so adorn his rooms. The staircase, however, and the finish of the tower in the second story has been made of a more elaborate character; and, as this country residence has been erected, I can safely say the consummated effect far exceeds any idea that the plan could represent.

The building stands in a noble farm below the hills of Berkshire county, Massachusetts, and the whole completed portions of the place show a liberality of arrangement such as few gentlemen willingly undertake in building. The house is not, however, an extravagantly costly erection, as may be seen by stating that the contract for completing it in every respect—furnaces, plumbing, mantels, grates, glass, painting, and, in short, all that entire finish required—was but about twenty-two thousand dollars, the contract having been made to include another residence erected a mile or two from this, which will be found in a further chapter, and the sum for the two was a little short of twenty-nine thou-



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sand dollars, the value of the latter being about seven thousand.

The building has been constructed in the most thorrough manner, the frame unusually heavy, and the walls back plastered, and their outer surfaces cased first with hemlock boards, and then smoothly ceiled. The foundation walls are of stone of an excellent quality, found immediately at hand, and the roofs are covered with tin.

The exterior, as represented by the illustration, is of a building, widely spread upon the ground, but not giving the idea of the really large mansion that it actually is. This quiet and unostentatious character was especially sought, and the grouping of the various portions of the house assist this effect; and, although each part is separately roofed, and to a great extent distinct, one from the other, the whole is so banded together and made one composition by the large tower that rises out of the midst, that the entire mass is seen in one connection, and the unity of the design becomes evident.

The point of sight, from which the building is supposed to be seen, shows the picture-gallery in bold relief; and, in selecting the aspect from which to give the illustration of the external appearance of this mansion, considerable hesitation was bestowed before deciding to represent it as it is shown. In fact, the view from all sides presents the building in aspects so various that it is merely a matter of choice which side to prefer. There is, as it were, no rear to this house; every façade

is equally finished, and it so stands as to bring, in turn, every side to view.

The style differs materially in its expression to that of the villa last described. There is more of the horizontal, and less of the vertical, tendency in the leading lines; and the parts are so adjusted in importance, one to the other, as to rise in almost regular gradation from the ground; so that, seen from whichever side you please, the tower seems to rise from the centre of a graduated mass, the outlines of which thus easily fall into pyramidal proportions. The Italian style of the Venetian period gave the architectural ideas that are embodied in the general character and details of the building, and in the finish of the end of the picture-gallery especially—a careful carrying out of the principles of the style has been attempted, and made as fitly accurate as the purpose of the building would permit.

The grounds around such a building, should the reader find it sufficiently an embodiment of his own requirements to seek to erect it on his place, should be left as boldly waving and as widely-spreading as possible. There is great danger always in arranging garden grounds and lawns about a house so characteristic, of frittering away the effect, by multiplicity of little parts. Terraces, and winding-walks, and garden-beds, are all very well in their way, but they must be upon a grand and stately scale to harmonize with such a building; better a ten-acre lawn than a ten-foot rose-bed; and in providing scattered spots for flower cultivation, they

should be thrown here and there, wherever the natural undulations of the surface leaves a rising knoll or a natural dimple for such floral adornment. Especially should many small gravel-walks be avoided; they cut up the lawns, and destroy all breadth of effect. It is true that, under an overhanging bank, or skirting a natural ridge, or following the curve of some winding hollow, pathways are both beautiful and useful; and, where necessary to lead to some peculiar feature upon the place, their presence tells its own tale; but for merely the sake of affording tracks for walking, without object, and frequently so disposed that the exerciser returns in the same path, through devious windings, to the point from which he started, such gravel-walks are in bad taste.

The summer residence of a wealthy family, in the Northern States, has many features in common with the large home in the South. The same ample range of rooms—an equal arrangement of spacious external colonnades or verandas, and frequently a separation of the domestic offices from the main building, as marked as in the veritable house of the planter. In fact, the summer heats of the North render shade and airy arrangement of the building as necessary as in the sunny South; and, with a few local differences, the per-

fectly planned Northern pleasure residence is equally adapted for erection in the Southern States.

Upon the North River are many grand old residences that were built half a century ago, and which, although now greatly altered in their interior arrangements and provided with conveniences for living which their builders did not attempt, had a stately appearance which is worthy of imitation. Their general fault, however, is in their partaking too much of the classic model, and, as the material employed is usually wood, there is an incongruity between the style and the substance in which its features have been constructed, which causes a violation of principles of good taste, and is moreover a source of constant annoyance and expense from the frequent necessity of repair.

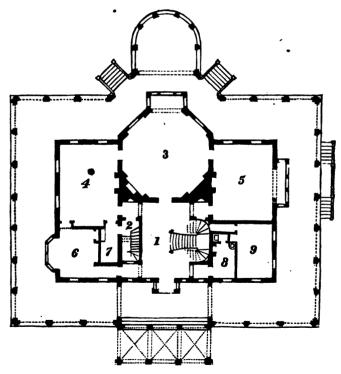
A fine old family homestead on the Hudson recently came into the hands of a gentleman, who hesitated whether to repair it and re-model its arrangements, or to pull it down and on the site build a new house. The former course was determined upon, and the frame of the old building was renovated, the crumbling and decayed colonnade that surrounded it removed, and a re-arrangement of nearly the whole interior was at once commenced. The house, as it stood, was one of those square buildings, with portico in front, containing in its upper story and pediment, chambers cold as an ice-house, and as shaking and crazy as an old battered boat, but the general distribution of the plan was so good, and the situation of the building so difficult to be

equalled, that my labors of adapting the old shell to a perfectly planned modern residence were peculiarly interesting and pleasant. It is not worth while to show the building in plan as it existed before—but the illustrations of the residence, as now standing, represent a house so conveniently and desirably arranged as fitly to serve as a type for the large mansion of either the North or the South.

The old house was designed in very much of the French-Italian style of many of the chateaux, and it is said, owed its erection to the plans and superintendence of the celebrated Brunel, who crossed the Atlantic on purpose. In re-constructing it, the characteristics of the style of the original building have been preserved, and could the spirit of the old designer be present, he would, I fancy, see rather a completion of his first ideas than an alteration; at least, such was the feeling with which the architectural impression was sought by me to be given.

The building stands upon an eminence, overlooking the river, and in grounds of very considerable extent. The principal floor is raised above the surface so as to permit an airy and well-lighted basement under the whole house. In the rear, the slope of the ground falls away rapidly from the building, and in front is a level lawn, stretching for a considerable distance, and then suddenly dipping down into gorges and ravines, so bold and numerous, as to suggest the idea of the latter feature giving an appropriate christening to the place.

The kitchens and other domestic offices are thus conveniently arranged in the basement, and in this particular, the southern building would, perhaps, require a different adjustment, so that they might be in a separate mass removed from the house, and connected with it by a covered way, which, if the first floor were still retained the same height, could readily be done; the



PL. XLIII.—SUMMER RESIDENCE OF THE NORTH, OR MANSION OF THE SOUTH—PLAN OF PRINCIPAL FLOOR.

space under the dining-room being made a large serving-room, and the covered way referred to attached to it, and running off to the outer kitchen, the roof of this arcade being below the veranda floor, and partially concealed by a trellis, with flowering creepers trained thereon.

The principal floor gives the key to the arrangement of the basement or ground story, and will, therefore, first be described.

The entrance portico extends in front beyond a wide platform, from either side of which expands the veranda that entirely surrounds the house. This portico has its steps so arranged as to permit a carriage to drive on to a line with the lower one, and to land its riders under cover, thus serving all the purpose of a carriage porch. The steps in front are of easy breadth and ascent, the entire stretch of the portico being over thirty feet.

Upon this upper platform is the step in front of the entrance doors, which are double, and so contrived that one pair may be left open in summer time, and the air admitted through perforated iron panels in the pair left closed. Upon each side of these doors is a round-headed window, lighting the hall, and filled with richly-colored stained glass.

The main hall, No. 1, is a noble feature of the building, and deducting the space occupied by the staircases, is twenty-eight feet by twenty-four feet deep. Upon one side of the hall the principal staircase is arranged, and is made a double flight, one broad portion leading

to a landing about midway of the entire height, and then branching right and left in equal divisions, and meeting upon the same line and level upon the floor above. Such a staircase is not common, but when properly finished is a feature of very great beauty, adding greatly to the architectural effect of the interior. Below this staircase are closets for various purposes, and on either side of it are vaulted entries conducting to rooms. Upon the other side of the hall is an inclosure, containing the private stairway to the kitchens, and to the chambers over; this is marked No. 2 upon the plan, and is so placed as to be entirely cut off from this floor, the servants being able to ascend from below to the chambers over without passing into the main hall, a door shutting the inclosure off at pleasure, and only being needed when going to the front door or to the dining-room, though, as will presently be seen, the latter room can be had access to from the waiter's pantry, which also connects with this private stairway.

Immediately in front of the entrance doorway, and leading from the centre of the main hall, is a large octagon room, twenty-six feet six inches across, and fitted up as a library, each of the four sides not occupied by doors and windows being fitted up with noble bookcases, so designed that the fire-place and the large marble opening corresponding to it on the other side of the doorway which conveys heated air into the rooms, have also their upper portions and spaces, at either side, arranged for books. Opposite to the doorway from the

hall is a large projecting window, the opening into the room from which is sufficiently clear to admit the requisite amount of light; and above the book-cases, in the two sides near to this, are round-headed lunettes containing glass for the purpose of lighting the upper portion and the ceiling-decoration of the room.

Passing from the library, upon one side is a dining-room, No. 4, and upon the other a drawing-room, No. 5. Each of these rooms are twenty-six by twenty feet in the clear, the drawing-room being enlarged by a spacious bay-window upon one side, and the dining-room increased by a recess at one end for the reception of the sideboard.

These three rooms connect together with doors, one from the other, and the dining and drawing-rooms also open into the main hall by means of vaulted entries as in front, only containing niches for bronzes or statuary, recessed out of the angles left in forming the octagon of the library.

Returning to the front entrance: a passageway leads upon one side to a small morning-room, No. 6, passing a waiter's pantry, No. 7, which is lighted by an inner window of ground glass opposite to that in the passage; and upon the other side, a shorter entry conducts to a gentleman's dressing-room, No. 8, with all the requisite water arrangements, a most convenient and desirable feature upon the principal floor of all first-class houses in the country. Beyond this, and entered by means of a private passage leading from under the stairway, is a

sleeping-room, No. 9, with a closet opening from it, and one also from the passage leading to the room.

Entirely surrounding the building is a wide veranda, and from it, upon the side opposite the bay-window of the drawing-room, is a terrace with steps descending to the lawn and gardens below. Opposite to the window in the library, the veranda is projected out in the manner shown upon the plan, forming an *ombra* or shady seat of great beauty and usefulness. The floor of this is laid with encaustic tile, and, upon either side of it, wide steps conduct to the garden. The height of the rooms on this floor is fourteen feet in the clear.

In the pantry or waiter's room are a dumb-waiter from below, and, built into the brick wall that in the old building contained the fireplace, is an iron safe for plate. The morning-room, No. 6, is enlarged by a bay-window projecting on to the veranda, but not doing so to an extent to injure the usefulness and beauty of the latter.

The finish of the rooms and hall of this floor is such as an architect rarely has the opportunity to design. The main hall is wainscoted to the height of about three feet in richly panelled work, and the door-casings are in style to correspond. The staircase is of congruous design, and the finish overhead preserves the same character. The walls above the wood-work are panelled and painted, and the wood-work itself is all of solid black walnut, unvarnished, but merely oiled and carefully rubbed over.

The library has but little wall space unoccupied by book-cases, and the doors and doorways are in style to correspond with these, which are of elaborate and carefully-designed character.

The dining-room is wainscoted from floor to ceiling in rich panels, and carved and gilded decorations, the cornices above windows being portions of the general design, and the curtains arranged to be hung within them. All this wood-work referred to is of black walnut, and the movable furniture has been carefully designed to correspond in style; the mirrors are panelled into the walls, and do not, therefore, interfere with the general design.

The drawing-room is of lighter and more airy caste. The bay-window has its opening supported by purely white scagliola columns, with caps and bases of the Ionic order, and the base around the room and woodwork of windows and doorways is in light and lively colors, and the walls panelled and papered to match. There are open fire-places in the library, dining, and drawing-rooms, and, in addition, a large furnace is provided below, which warms at will every room in the house.

In the floor below, the walls are carried down under the divisions upon this plan, and, therefore, a description of its arrangements will serve equally with an illustration.

All around the building is a paved area under the veranda floor, and in front, below the portico and plat-

form, side walls are extended to the main walls of the building, and the space thus left is converted into spacious coal stores, conveniently filled from outside, and easily got at from within.

Under the dining-room is a large kitchen, with range, sink, and hot water arrangements for supplying other portions of the house. Next to this, under the morning-room, is a kitchen, buttery or store room, provided with a sink, and below the waiter's pantry is a room for the man's use, which communicates with his room above by means of a dumb-waiter, and has a fireplace.

Beneath the library, the space is divided mo a wide hall, running through the centre, and opening into the area between the space under the ombra and the outer walls of the octagon. Upon one side of this, next the kitchen, is a large scullery, containing at one end a brick oven, and at the other convenient arrangements for kitchen utensils.

Upon the other side of this hall is a wine-cellar, divided into bins, and offering accommodation on the most liberal scale for the hospitable storage of many a year's use.

Beneath the drawing-room is the laundry, and beside it a hall runs from the kitchen to the area upon the opposite side of the house.

Beneath the chamber, in the outer corner of the building, is a servants' sleeping-room, and beside it, below the dressing-room, one store-room, and another beneath the space devoted to the principal stairway above.

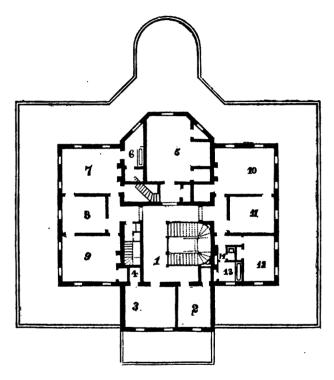
Under the main hall a deep excavation is made, in which is the heating apparatus—one of Chilson's largest sized furnaces. This apparatus is set in an exceedingly convenient manner, being left readily exposed to view (and consequently attention), and has a light iron gallery surrounding it, with steps of the same material to the level of its floor. The floor beams of the hall above are supported upon iron columns, and from the gallery in the rear of the furnace the coal cellars are reached.

The private staircase occupies the remainder of the space, and is inclosed in brick walls, so that all the material around the furnace being of brick, stone, or iron, there is little danger from fire.

Immediately under the small vaulted entry that leads from the hall by the private staircase to the passages conducting to the morning-room, and as the plan will indicate, in a retired, but convenient situation, is a servants' water-closet, having a window communicating with the outer space, containing coals, and if necessary susceptible of further ventilation, by connecting an airduct with the smoke-pipe of the furnace.

The space under the ombra, being made so as to be very open, affords an airy place for storage use, and I may suggest that it could easily be arranged by slight enlargement of its dimensions, to be used as a billiard-

room, if the taste of the owner led to the seeking of such amusement as its provision would afford.



PL XLIV.—SUMMER RESIDENCE IN THE NORTH, OR SOUTHERN MANSION CHAMBER PLAN.

The second or chamber floor is thus arranged:

· The principal staircase ascends by two flights to a large central hall, lighted by a dome constructed in the

attic flooring, and illuminated by glass in the roof immediately over it. This hall, No. 1, is nearly square, and from it arches lead into small vestibules, connecting with the different rooms. Immediately in front are doors leading into two chambers, Nos. 2 and 3, over the portico, and forming a projection that is crowned by a pediment in the centre of the entrance façade. From the front portion of this hall a space is partitioned off for a closet, No. 4, attached to room No. 2, and corresponds with an opening upon the other side of the hall leading to a vestibule.

The space above the library is divided into a large bed-room, No. 5, with an alcove for the bed, a dressing-closet in the angle of the front lines of the octagon connected with it, a large closet corresponding to this upon the other side of the alcove, and a second closet near the door. In addition to this is the vestibule that leads to this chamber, and in it a large linen closet; whilst upon the other side is a staircase, leading to the upper floor of this octagonal portion of the house, which, as the external illustration exhibits, is carried above the roof of the main building.

The remaining space in this portion of the plan is devoted to a dressing-room, No. 6, with bathing-room attached, for the use of the chamber, No. 7, and from which a door opens into a large closet partly under the lower stairs, as shown upon the plan. Next to this is a smaller sleeping-room, No. 8, and in front one of the same size as No. 7, marked upon the plan No. 9, and provided

with a large closet near the outside wall and a smaller one the other side the fireplace.

The private staircase is continued to the attic above, and has space in its inclosure for a housemaid's closet and a sink. The other side of the building is occupied by a large room, No. 10, one of smaller size, No. 11, and a chamber in the corner of the building, No. 12. There is also a bathing-room, No. 13, and in the entry leading thereto, a water-closet, No. 14, each ventilated by communication with a shaft contained in the old chimney breast, which is still retained.

The attic over the main body of the building is large and airy, and although not so used in the present instance, could be converted into servants' sleeping-rooms.

The upper story of the octagonal tower contains, however, three very excellent and convenient chambers, to which a staircase ascends as the plan of the second story represents, so that further accommodation for domestic use would not be requisite, particularly as a sleepingroom for a man-servant is provided in the basement.

The arrangement of the several floors thus described is in accordance with the plans first prepared by me and although, in carrying them out, some slight variations have been made by wish of the owner, particularly in the principal staircase, and in the subdivision of the chamber and dressing-room upon the first floor, on reflection I adhere to the better convenience of the first idea, and therefore offer the plans for study and future erection as they are here represented.

The house is, in round numbers, a parallelogram of about seventy-five feet front, by forty-five feet deep; the basement or ground floor is eight feet six inches height; the principal floor fourteen, the chamber floor ten feet, and the attic about four feet upon the inner surface of the outside walls.

The building is heavily framed; filled in solid with brick, and smooth-ceiled on the outside upon a sheathing of boards. The roofs are tinned, the building entirely complete as to all its internal finishings, the plumbing on the most comprehensive scale, gas-pipes carried all through the interior, and each room is ventilated by air-shafts formed of tin inserted in the partitions and connecting finally with large air-chambers in the attic, and by ejecting shafts and ventilators discharging impure air into the atmosphere; and is moreover capable of being warmed at will by the furnace previously spoken of.

The cost of such a mansion, finished as this is—with its substantial stone walls to the lower story, its heavy frame, extensive verandas, and internal fittings so elegant and complete—would not be less than thirty thousand dollars; but the same mansion, as to its commodious plan and external finish, could be erected for a considerably less sum, probably for at least one-third less, or even a greater reduction could be made in a locality where labor and material are cheap, and there is no thought of the elaborate internal plenishing that has been described.

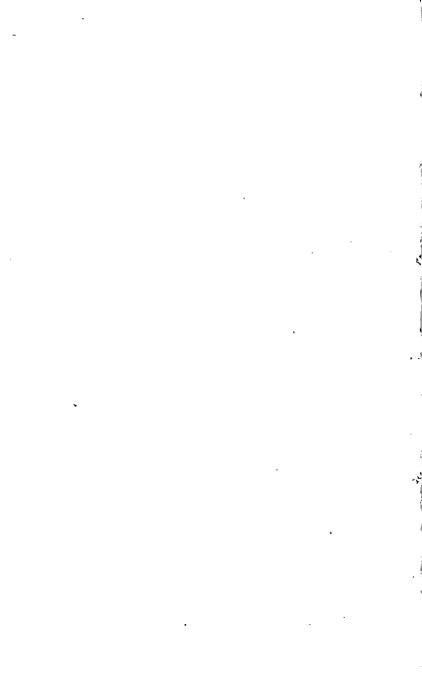
The point of sight from which the illustration is taken gives the garden, or as in this case, the river exposure. This selection was made to show the effect that has been obtained by the arrangement of the octagonal elevation above the roofs, and entirely differs from the entrance façade, which is really extremely grand and imposing. There are, however, features about the exterior, as seen from the point of sight selected, which are peculiar, and the entrance front, though if anything more rich and dignified, has yet characteristics more frequently met with, and therefore not so valuable for illustration; and as much of it may be understood from a study of this view, in connection with the plans of the several floors, a verbal description will suffice.

The colonnade forming the veranda, returns around the building in front, and the entrance portico is composed of piers and arches similar in design, and only differing in their size and some of their embellishments. Above this is a pediment formed by the proper architectural development of the cornice, and in it are three round-headed windows, the centre one higher than those on either side, finished in the same style as is preserved throughout the exterior.

The portico extending beyond the projection crowned by this gable, should be adorned with pedestals above each pier, with balustrading of appropriate design between, and vases or other architectural embellishment surrounding them. The effect of this, as seen in connection with the rest of the composition of this front,

COUNTRY HOME IN THE NORTH OR SOUTH.

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would be, in any grandly-featured scenery, exceedingly impressive; and all such a place needs is a lawn, so disposed about it as to form a base to the building, and noble woods and shrubberies to set its outlines, and give a fitting background.

In the view offered, the outlines of the building rise gradually from the ground, step upon step,—up the base, from the veranda, along the cornice of main building, till meeting in the culminating point, above the octagonal dome-like finish of the upper story of the tower, the contour has become pyramidal, and the symmetry of the building not interfered with at any point of its delineation.

The ombra, or projecting shade-room, that juts out from the centre of the veranda, is a feature that in situations where the indwellers are tempted to pass much of their time without the building, cannot be too often employed; and on the site where this structure stands, there are views so lovely stretching at every side, which the openings of its arched sides command, that in morning time when the sun is upon the other side of the house, it could not fail to tempt the residents to bring work or book, to be dallied with under its shading roof.

The style has before been alluded to, and with the preceding houses described in this chapter, a very fair illustration of the several varieties of Italian architecture, as adapted to modern use, may be taken from these buildings: the first expressing the spirit of the

Roman, the second the Venetian, and this the Florentine eras of the school of art that prevailed in Italy.

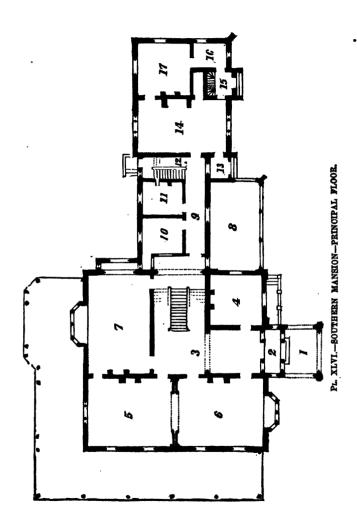
The next design is of a mansion-house of simple arrangement, but with rooms of large size, and with the domestic offices semi-detached from the building. Such a house is adapted for erection on a plantation in the South, and, at the same time, has nothing about its plan or mode of construction that would render it unsuited to the North.

The material suggested for its construction is stone, roughly laid, and the overhanging roofs and the window-frames, verandas, and other architectural details made of wood. The style is that which modern convenience would mould the characteristics of Gothic into, and the ornamentation of the building is of the simplest and most easily constructed design. The effect, as will presently be seen, is left entirely to the outlines and natural breaks of the plan, and the general impression given by the external appearance of the building is one of breadth and simple grandeur.

The general principles that have been introduced in previous pages have great force in considering the present structure, and the plan of the building is thus offered with explanatory description of its parts; and when the whole structure has been sketched, the circumstances under which its erection would be suitable, and the site adapted to its display, will be considered.

The principal entrance to the house is under a wide and lofty carriage-porch, No. 1, under which a vehicle can drive, and from which wide doors lead into a vestibule, No. 2, in front of the inner or hall door. This vestibule is fourteen feet wide and six feet deep, and has large windows for light and air. Within the vestibule is the principal hall, No. 3, a noble room, fourteen feet in width in the portion conducting from the front door, and sixteen feet wide where leading at right angles to the grand staircase. This staircase is arranged to ascend in one broad flight to a landing, and from which a double course of steps leads right and left to the floor above, in the same manner as in the staircase of the house last described. The end of this staircase hall is lighted by a large window in the outer wall, filled with stained glass, and there are also similarly glazed openings finished to correspond in the partitions that surround it, a Gothic arch supporting the main wall above, and the landing of the stairs made of such height as to be even with the floor of the wing containing the domestic offices.

Upon entering the house, the first room is the library, No. 4, sixteen feet square, and forming the base or lower story of a tower, as is represented in the elevation. From the library a wide window opens upon one side to a balcony or small terrace roofed over by a canopy, and up the sides of which leaf-shade could be



trained in all the luxuriant beauty of southern creepers; and, on the other side, a similar window leads to a spacious ombra or shade-room, fitted at will with *jalousies* or turning-blinds, and forming a delightful out-of-door extension of the apartment.

Upon the other side of the hall are the two drawing-rooms, 5 and 6, communicating by sliding doors, and each one twenty-seven feet long and twenty-two feet in width. The room in front is varied by a projecting oriel window, and upon the sides wide windows stretch to a veranda fourteen feet in width and inclosing two sides of the house.

The dining-room, No. 7, is a noble apartment, thirty feet by twenty, with a spacious embayed window upon its one side, and a deep recess lighted also by window-openings, and contrived for reception of a sideboard. A sliding window, glazed to match the other openings, connects this with the waiter's room, which will presently be described.

No. 8 is the ombra attached to the library, and 9 the passage leading from the staircase hall to the domestic offices. This passage is wide and airy, and the windows are designed to be placed more high than is usual from the floor, so as not to intrude too much on the privacy of the ombra.

No. 10 is a large room for the waiters' use, and has a connection with the dining-room, in the manner that has been alluded to. This room is intended to be fitted with shelves, closets, sink, plate-chest, and all the appur-

tenances of such a room in a first-class house; and next to this is a store-room, No. 11, also fitted with inner conveniences, provided with a fireplace, and of same size as waiter's room, that is, eleven feet by thirteen.

Beyond this is a hall, No. 12, containing a private staircase, with windows at each end, and an outer door from the garden. A porch, No. 13, conducts to the rooms more especially devoted to the use of the servants, the plan providing a large kitchen, No. 14, which is seventeen by twenty-six, and connected with it a hall containing a servants' staircase to cellar and to servants' sleeping-rooms above, marked on plan 15, and being the base of a small tower; this also has a direct communication with the outside.

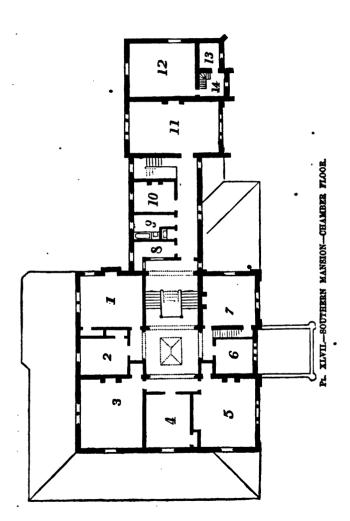
Next to this is a scullery, No. 16, and a large laundry, No. 17, in which is also an outer door.

The height of the hall and rooms in the main body of the house upon this floor is fourteen feet; that of the portion in the wing ten feet.

Below the whole is a cellar, carried down under the principal rooms, so as to leave an air-space only below, of about four or five feet in height, and under the wing the walls are carried lower, so as to form a cellar for storage and other purposes.

The chamber floor is arranged so as to provide seven large and airy bed-rooms in the main body of the house, distributed in the following manner:

The principal staircase ascends from a landing on the lower level of the floor above the offices in the wing to



a large central hall, lighted and ventilated from above, and having wide arched openings leading into vestibules connected with the several sleeping-rooms.

Of these, No. 1 is a chamber above the dining-room, eighteen feet by twenty, and connecting with it is a smaller one, No. 2, sixteen by twelve; each of these rooms have provision for closets, and have large and airy windows and fireplaces, the latter of importance for ventilating purposes, even if climate seemed, at first thought, to forbid but accidentally their more legitimate use.

No. 3 is partly above one of the drawing-rooms, and is twenty-two feet by twenty. Next to this is No. 4, one smaller in size, being seventeen by thirteen, and adjoining this is No. 5, a room, including recess for bed, of similar dimensions to No. 3.

In front is a single chamber eleven feet square, No. 6, by the side of which is a closet to room No. 5.

• Next to this is a chamber, No. 7, over the library, and of the same size; and, between this and the adjoining room, a staircase is inclosed leading to the upper story of the tower, and across the space above the hall to the three chambers over the rooms 3, 4, and 5. The whole of these rooms are regular in form, conveniently arranged as to door and window openings, and have sufficient closet accommodation.

The landing upon the principal staircase is extended in the same manner as upon the hall below, and is similarly finished as to its windows and openings. A door leads from this into a wide corridor extending to the hall containing the private staircase, and amply lighted by wide windows, so placed as to secure a thorough draft.

Immediately upon entering this passage is a large linen-closet, No. 8; next to this a bathing-room, No. 9, with a water-closet within it, and one also separately entered from the passage.

· Beyond is a sleeping-room, No. 10, the size of the housekeeper's or store-room below.

The private stairs that are in a hall intersecting this passage, it will be observed, commence from an entry below, in which an outer door to the garden is provided. The purpose of this arrangement is both to give the servants access from the kitchen to the chamber floor and to conduct to a large room, No. 11, the dimensions of the kitchen below it, and which I propose should be finished as a billiard-room, the ceiling following the slope of the rafters, and being supported by a framed roof of ornamental design. The situation is one both of convenient approach and of sufficient seclusion, and, as the staircase leading to it can be entered from the garden as well as from the main body of the house, there hardly seems a more desirable place for such a room, if taste led to its provision. If not, various uses could be found for the space thus devoted.

Beyond this, but as an examination of the plan shows, entirely separated from all possible connection with the main building, are sleeping-rooms for the domestics; or on a plantation, such house servants as the family preferred to accommodate within the home building. A separate and entirely distinctly entered stairway is provided in the small tower that leads to these, and they consist of one large room, No. 12, and two smaller apartments, 13 and 14, the tower being carried again above this floor, and leading to a further space for sleeping accommodation, if necessary, in the roof of the portion above No. 12. This small tower is designed to contain in its upper floor a bell for calling the hands employed at a distance, and for such other purpose as life upon a large estate or plantation would suggest. I would also remark that a clock would fitly be provided in such a situation, and would be a useful addition to the exterior of an elevated building such as is this.

In deciding upon the character of the internal finish, very much must be left to local advantages and capabilities. The ample size and airiness of the plan would permit a very simple completion of its parts, if such, however, were boldly designed and honestly carried out. The native woods of the South, oiled and polished, are appropriate for such purpose, and have the beauty of increasing the richness of their hues and the gloss of their natural polish as time wears on. The hall could be wainscoted in this manner in narrow panels, the joints covered with moulded battens, mitering with rails top and bottom of the same moulding, enriched below by a heavier base running above the floor, and

by some simply curved, but strongly marked, mouldings above, to support the cornice of the ceiling. These may be subdivided in any appropriate manner, and with handy workmen to carry out the design, carved heads to the panels and the other enrichments of Gothic tracery may be introduced. The same spirit may influence the finish of the whole of the interior, and as a plan embodying very many desirable features, and of exceedingly simple arrangement, this design is offered for careful study. The building, altered in some of its detail to suit somewhat peculiar requirements, has been erected in a midland State at a cost of about sixteen thousand dollars. The whole building, in the case referred to, was of stone, roughly laid, and the sills and caps of windows, &c., hammer dressed. A plan taken in many of its main features from this, and varied rather for the sake of securing a more elaborate and showy exterior, in accordance with the wish of the owner, than from any gain of convenience, or better adaptation of internal accommodation, has also been carried out in a northern State, but at a vastly increased cost. The plan, as represented by these illustrations, has been carefully thought over; the variations that the two completed buildings suggested have been jointly considered; and the design now offered has the form that appears to me to combine the greatest number of advantages so as to secure convenience, external effect, and economy of outlay.

The small scale to which I am necessitated to repre-

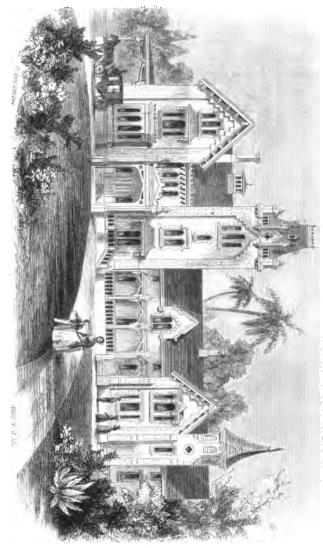
sent the drawings scarcely does many minutize of the plans justice, but the Southern home-seeker, and the reader elsewhere, will find much to suggest ideas of comfort in a house, in the details of the mansion before them.

The long stretch of the façade of the entrance front is shown in this illustration in direct view; and seated upon a widely-spreading lawn or natural park, with grand old trees around it, this building would be found to have an imposing and dignified effect, without ostentatious assumption, or appearance of aping the aristocratic magnificence of old feudal mansions.

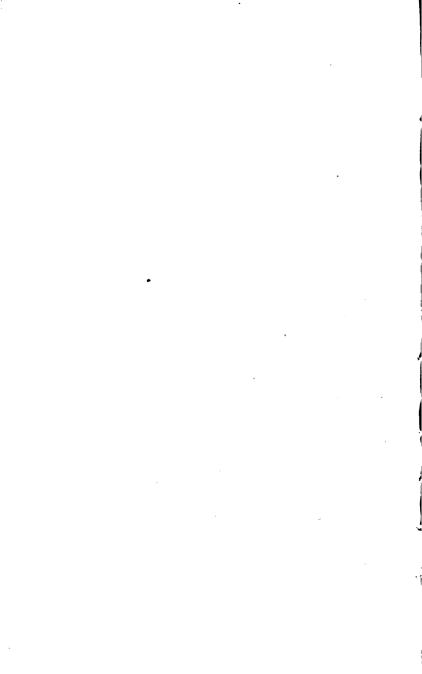
In front, the carriage porch projects from the building, and is intended to be built of masonry; the form in which the details are finished offering no difficulties of such construction in situations where stone of average quality abounds.

The gabled end upon one side, and upon the other the tower, give a picturesque aspect to this portion of the main building, which is continued by the grouping of the buildings containing the domestic offices.

The large tower is intended to serve a useful purpose, the upper room being arranged as a pleasant look-out, from which a view of the whole estate might in some situations be enjoyed. The conical and truncated roof above this is formed so as to resist heat, and is contrived also to form a means of ventilation for the rooms below, air-ducts, communicating with each, discharging into the large receptacle thus formed between the outer sur-



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face of the roof and the flat ceiling of the upper room of the tower, and being dispersed into the atmosphere by means of apertures in the top and sides of the roof; the apertures protected from the weather by a proper mode of construction.

The veranda upon one side, and the ombra connected with the library, are intended to be constructed of wood, with supports strengthened by buttresses, and relieved by simple tracery, in the manner that is shown by the In the ombra a dwarf balustrading of illustration. open Gothic panels is placed between each support, and within each division a jalousie or blind could be hung or otherwise attached, if preferred. The coolness of the air within this ombra would be materially increased by constructing a large flue from the corner of its roof where it rises against the walls of the tower and wing building, and continuing the same up the angle of the former, and discharging into the air above its roof-by which means a constant draft through this out-door apartment would be secured.

The walls are shown recessed, to add to the effect and strength of the building, and if the stone would not serve for external finish, but was only capable of being used when covered with rough-cast, this design could be carried out in precisely the same spirit, and the outlines of the house and break of the masses left to tell their own tale—trusting to timber to form the other architectural details of the exterior.

It is not to be supposed that any amateur would ven-

ture upon the construction of a building so important as this without the professional counsel or supervision of an architect; and, therefore, further remarks upon its characteristics are not necessary—the illustrations sufficiently explain the general idea; and the principles of determining fitness between locality and style for building, that have been before laid down, must guide the reader in deciding how suitable such a house would be for the site he may intend to build upon.

Such homes as these four designs represent are growing in number throughout this country. The desire to build—to have a home of one's own—is implanted in the breast of every American; and, I fancy, statistics would show that the number of those who own homesteads in this country very far exceeds that of the householders in England, where long leases are easily obtainable and land is costly to purchase and difficult to be procured. With this feeling, too, is implanted a sturdy kind of independence, that is apt to make a man follow out his own fancies of erection, and be but little influenced by rules of art, and texts of precedent, for which he has but little reverence, so that—though there is plentiful demand for mechanical labor to construct the house, and of skillful workmanship to give it all the improvements and conveniences that modern science

has perfected—the aid of the architect is as yet not so sedulously sought for in this country as in Europe. But as the people become themselves interested in architecture—in the art which enables them to plan and adorn their homes—the value of its educated professors will be more broadly recognized; and I, for one, do not despair of seeing a Professorship of Architecture established in the principal colleges, and at least the rudiments and history of the art taught in our schools: when these shall have been done, the business of the accomplished architect will be tenfold increased.

But, in the meanwhile, a good work is certainly going on; buildings are springing up, like beautiful flowers, all over the fair garden-spots of this country, that plead in more touching tones than the most eloquent sentences of writer or speaker for the cultivation of elegant appearance, and its union with simplicity and usefulness. The experiment has time-and-again been made, which has demonstrated that no larger outlay is required than that expended upon the bare card-wall box, that at one time delighted the householders of New England villages, for the commodious and pleasing villa-cottage; and, whenever the latter has been erected in a country neighborhood, which has carefully been planned, honestly adorned, and economically constructed—there has a great benefit been conferred.

The large country mansion is but an extension of the same principles, and should be as fully made to embody the ideas of frugality in expenditure—yet without niggard denial of cheerful and appropriate adornment. The man that has the means to build a large house has the means to make it beautiful; he may need to give it simple finish and little elaborate embellishment, but he can give it the form and embodiment of beauty, and will have the consolation of knowing success depends far more upon happy combination of parts—adherence to the unerring laws of proportion, and honest use of material to its legitimate end—than upon the costly workmanship of details, and lavish expenditure in embellishment.

Ornamentation is not an end, but a means, in art, and will countervail no absence of convenience or comfort, however plentifully it may have been bestowed. An anecdote is told of a certain English nobleman, who had lately built a very elaborately decorated town-mansion, of which the street-front was one mass of ornamentation, but the building within, gloomy, comfortless, and ill-contrived, and which, upon extolling to a friend, called forth the remark that "his lordship had better take the house opposite, so that he might always be able to look at it:" that being the only pleasure a man of sense could conceive to be derived from possession of such a building.

In building upon lands already owned, or in selecting a site for the erection of a country mansion, too much should not be attempted at first. A very common error into which men are apt to fall is in fancying so much has to be done, whereas, in reality, if proper selection of the one, or honest use of the advantages of the other, be made, the very highest beauty can be attained by simply letting well alone.

A wealthy man buys a place, and builds a house, and fancies everything must be done in a day, and so he grades, and blasts, and levels, and makes smooth, and at infinite toil and expense succeeds in planting his house on a base of new-made ground, which looks slovenly for years, and has no trees of importance for a life-time. Nature is, after all, no mean landscape gardener, and where she does not carry out her full design, generally gives such hints that one may readily catch her meaning.

Many a family have begun with high hopes and wellmeant intentions to beautify their newly-founded country place, but they have commenced in so many parts at once, and have cut themselves out work so laborious, that a very few years has sufficed to disgust them, and the fancy place is sold to the highest bidder, at a price which is a sore matter to touch upon with any member of the family afterwards.

No land that I have traversed has natural scenery so grand, and so easily made home-like as America; no trees in the world so noble; no growth of verdure more luxuriant. It is true, degrees of beauty exist; and a man may make an unfortunate selection in the situation for his country place, but there are very few spots where, if they have not been ruthlessly spoilt by interference, nature has not shown her beauties—and the most that

the hand of man is called upon to do is to enrich the soil by cultivation, and to make nature's toilet, as it were, by natural trimming and decent adornment of her charms.

The old homes of England are set in a frame of beautiful trees; and age has brought with it all the fullness of growth that shrubbery and leaf-shade can attain. But although there are certain effects that only the long and continued cultivation of years can give, the natural sylvan beauties of America afford chances to choose building-sites nearly ready to hand as lovely in their way as the gardens of the old world.

The buildings of this day, it is true, have not a source of beauty which belongs to the old buildings across the water; we cannot in one generation gain the grandeur and picturesqueness of the old homes of a long resident family, each life of which added a wing, or a porch, a room, or a projecting window to the substantial block of the parent house, and so gave a quaintness and pictorial beauty which a single effort can hardly reach; thus there must be for some time yet an air of newness upon our country mansions. But this will only give better play to the elegant neatness that would complete every detail of the building in one consistent manner, and so change the glare otherwise inseparable from a new erection, into a lively freshness. Miss Bremer, as quoted by Mr. Downing, complained of American "buildings looking so new-and castles so little;" yet feudal Europe will hardly show so many cheaply constructed buildings having the same internal conveniences or comforts; and if our "castles" are little, it can safely be said, more rooms are inhabitable than in those of Germany, or in any other part of the continent.

Yet Americans justly lay themselves open to strictures when they show so little sympathy with the beauties of the country that surrounds the place selected for the erection of a home, and the faults committed have been so constantly made evident, that it is not worth while to dwell upon them, because their existence is partly natural to the haste with which progress in home founding has rushed on, and to the small amount of really useful information upon such subjects at command. Time, and early attention to the principles of artistic propriety, will soon lead to better results, and a good taste be awakened in our midst.

PART THE THIRD.

THE COTTAGE.

CHAPTER VI.

THE COTTAGE ORNÉE, OR SMALL HOUSE FOR PLEASURE RESIDENCE.

It is curious to see how, in architecture as in other matters, extremes meet. The cot of the humble laborer inspired some faithful lover of the picturesque to build a home like the ideal of a cottage externally, but plentifully provided within with all those etcetera that go to make life comfortable and luxurious. Years ago, it was the fashion so to build; and all over Europe, at one time, the fancy spread of seeking to exhibit, in the most whimsical manner, how, with a semblance of cottage form, palace habits could be accommodated in a building. Wealthy men vied with each other in building such little toy-houses, to be pleasured in for one season, and then abandoned to damp and spiders and rapid decay from the next. At this time was the rage for fancy dairies, ornamental cow-houses, and all the

occupations of the farm were sought to be sentimentalized; but the followers of this fashion soon grew weary of it, and, like other follies, it had its day.

But out of all this, good resulted. Attention was drawn to the possibility, even in farm belongings, of combining utility with beauty, and farm-life became less rude, and its more elevating influences sedulously cultivated. The whimsical erections, too, gave birth to a happy irregularity and picturesqueness of building, immeasurably an improvement on the square brick house, that before seemed the only form in which the residence for those occupying the middle rank in life could be cast.

Perhaps no country can show results so happy in this desire to accommodate frugality of life with elegance of manner as can England in the small suburban and rural residences which receive the name of the Cottage Ornée.

The people have profited by the costly experience of past generations; and, whilst one never sees erected now a perfect bijou of a small villa like that of the Duke of Devonshire—which Horace Walpole found fault with, as being "too small to live in, and too large to hang to one's watch-chain," though the caustic writer afterwards exhibited in his own "Strawberry Hill" how much easier it is to criticise than to excel—houses better adapted to every-day life, and, at the same time, exceedingly pretty and rustic in their character, plentifully abound. Sometimes there is, it is true, too great

an affectation of the cot about such suburban buildings, particularly when belonging to a wealthy man of many homes; and a passer-by is reminded of the cottage spoken of in a witty satire, where the Devil quizzes such an one (described) as—

"A cottage with a double coach-house—
A cottage of gentility:
And the Devil did grin; for his favorite sin
Is the pride that apes humility."

Such buildings, however, were the type of a class of house that dots everywhere the pleasantly-living places of beautiful England. Many a shady lane reveals in its windings, glimpses of such homes, and the combination they present of comeliness and comfort may very advantageously be studied. In this country, a want, rapidly growing in its imperativeness, is being experienced of just such homes. Country life tempts so many from the cities to spend at least a portion of the year with their families in rural retreats, that inquiry is awakened as to the best mode to adopt to secure an inexpensive yet enjoyable home, to be lived in during summer, and, perhaps, left to the charge of those that tend the little farm-holding attached to it, during the season of the year that city residence is intended.

This home, thus needed, differs materially from the

villa or the mansion, and has requirements, too, that seek embodiment in other forms than will be found in the farm-house or farm-cottage.

The family seeking such a home, it is supposed, require one for temporary or protracted residence, at will; it must not be a mere shell or tent, as it were a shelter for a few weeks or months in the season, as cottages at our fashionable watering-places are, nor yet are all the belongings of a permanent home thought necessary, although the plan should so be contrived that the house of the summer may readily be made the family homestead for life; and it is in this facility of after-adaptation and enlargement that the class of house now under consideration possesses advantages so charming and desirable.

Sometimes a summer-house is wanted of but limited accommodations; gentlemen fond of rural sports now and then are tempted to build such a little lodge amid beautiful scenery, where fishing or hunting may abound. The loveliness of the place may tempt the family to join in the occasional excursions made for such purposes; and, although these buildings are not so frequently to be met with here as in Europe, a want has, now and then, been expressed for such a little sporting cottage; and the first design in this section will exhibit a plan suitable for erection.

The artist, too, often needs such an abiding-place in which to spend his summer days, and gather lessons from the open book of nature, and in my professional practice I have more than once been called upon to furnish such a design.

Now and then appears an illustration of such a building in the serials, or other works that touch upon architectural matters; but I have scarcely examined one such design that was not too dreamy and unlivable for the purpose it professed to fill.

The excellences of such a building should be absolute economy in construction and plan, and adaptation to material that can be used with greatest facility. With these an appropriate harmony with the surrounding scenery should be sought, but there should be little embellishment that would cause difficulty of workmanship to the mountain laborers that the builder will be able to employ, and the material and mode of using it should be such as the neighborhood most naturally suggests.

The log house may be made a most comfortable and picturesque building for such a purpose, and the manner of thus constructing it would scarcely interfere with almost any ground plan that convenience led the owner to adopt.

Where stone abounds, a rough wall may cheaply and quickly be built, and of this material a very beautiful construction can be made. In fact, although the indweller is supposed to be a man of cultivated and refined taste, the outdoor surroundings are imagined to be wild and inartificial, such as naturally would be in those localities, that a sportsman or artist would be

likely to select as a place for summer sojourn. Yet no rudeness of life is intended—but only that simplicity that best finds play in the country, and so though plainly built and furnished, the cottage should be fitted in its plan, and in the decent provision for domestic convenience that it makes, for occupancy by the same owner, that elsewhere would require all the surroundings of refinement and artificial finish.

On the sides of a noble mountain, whose base dips to the waves of a broad river, and whose garb of verdure decks the sides to the upmost peak of its rocky crown, a winding road climbs, with frequent breaks, from a valley that one of the rolling sides of the mountain forms in intersection with the base of another of the range; and girdling the sloping sides, passes along through other mountain gorges and little valleys, until it is lost in the windings of its distant course. This road is not of much travel-it leads from one little hamlet, supported by the scant business produced by the saw-mills, that the tributary streams flowing into the river feeds, to another, a few miles distant. On this hill-side a spot is fixed upon to build a little summer-house. The air of the neighborhood is proverbially healthy; the scenery of a grandeur and changing freshness that the world elsewhere cannot surpassa few farmers in the vicinity constitute just so much of a neighborhood as to make a man feel he is not entirely alone, and can depend upon a friendly hand for kindly help at need, and the woods and waters abound with all that can contribute to a sportsman's enjoyment.

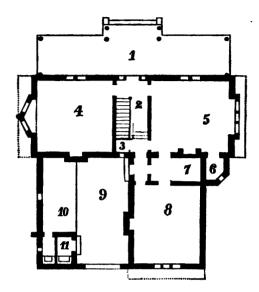
Not far from the site where the house is to be, is a farm cottage, and a barn, and other outbuildings, all in somewhat of a primitive style of finish; and at hand is a spot of cleared land, sufficient to support the inmates and their farming stock. Back in the woods and on the fertile margins of the mountain streams, the cattle find a constant pasturage, and with the aid of such expenditure as the owner of the place upon which this tenant house stands, makes at times upon the land, the farmer contrives to gather a comfortable livelihood, and to provide the inmates of the summer-house with all that they require for their table supply. This is no fancy sketch—and there are many such places scattered about the country, where homes such as I am about to describe may cheaply be built.

The sides of the mountain abound with a soft, shaly stone, easily worked if cut in one direction, but splitting into laminæ if severed in line with its bed. This stone makes a good wall, and can be found in natural slabs, that but little labor serves to convert into lintels and sills of any requisite thickness, for the stone readily divides in vertical lines parallel with its bed, but is very difficult to cut across. Thus the walls can be laid in courses of as close a regularity as may be wished,

and the stones placed in the natural direction of their bed, forming a strong and compact mode of masonry. Such walls need no pointing, and are exceedingly rural in their appearance, and as durable as the mountain itself. In constructing them, however, it is not desirable to carry them to any very great height—and it is well known that the ratio of cost of building such stone walls, and, indeed, all walls, very rapidly increases as the building advances in elevation. So a cottage, with the outer walls as low as convenience will permit, is desirable for the locality in view. But too extreme a lowness does not permit comfortable rooms, or healthful arrangement of the interior, therefore, some manner of adding to this height is to be sought for, and may be found hinted in many old buildings in Europe, where the upper stories overhang the lower, and the walls are built above the masonry, of timber, filled in with cement or other light material.

The summer-house that is designed to suit the mountain site that has been sketched, has, therefore, all these requirements to fulfill, and the following illustrations will show the reader the manner in which it has been done.

The building stands upon a small triangular terrace, level upon the top and forming a step in the downward bend of the mountain side. The road that has been described skirts it upon one side, and branching from this is a by-lane which leads to the farmer's cottage previously alluded to, passing on the way the small stable,



PL XLIX .- SUMMER COTTAGE-PRINCIPAL FLOOR.

kennel, and other outbuildings belonging to the summerhouse. The aspect of the place is such that the travelled road is in the rear, and the private lane branches at a point below the side of the building and traverses the side of the mountain immediately in front of the house —but upon a lower level and consequently screened from sight. The outbuildings are therefore lower down the mountain, but are concealed by trees and rocky elevations from view.

Thus placed, the whole of the building is exposed to view—the public road traversing the rear, and the sunny and pleasant exposure being in front of the house.

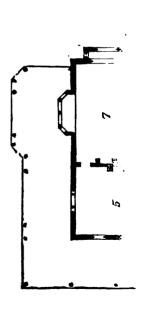
A careful arrangement of the plan so as to afford all the conveniences comfort in living requires to be attached to the house—and at the same time present no too free an exposure to public view thus becomes essential.

The plan therefore is disposed as follows. The road is in the rear, and a wagon-drive leads from it at one point, loops round the house, and returns again to the main road—previously, however, touching within a few yards of the lane leading to the stable, and affording convenient connection between the two, by a short road from one to the other. To render the plan more intelligible, it is represented as upon the ground, the rear towards the road, and thus agreeing with the perspective sketch of the exterior presently following.

Passing round from the main road by the carriage-path, the building in front is shaded by a rustic veranda stretching the whole length of the façade. In the middle of this a gabled-roof, supported upon brackets formed of the knee-shaped limbs of a tree, projects a couple of feet, so as to shelter the occupants of the vehicle in alighting. This veranda is marked No. 1, upon the plan, and from it a door opens into the entrance hall, No. 2. This is six feet and a half wide, and contains a staircase to the floor above. At the end of this an entry is partitioned off—in which is a door leading to the kitchen &c., and a closet for guns, fishing-poles &c., is provided—marked No. 3, lighted by a window overlooking the yard, and extending also under the stairs, as the site permits no cellar below.

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Upon the floor above, is a bed-room over the parlor, of the same size upon the floor, one above the dining room, a dressing-room in front between these, over the hall, and in the rear above the kitchen and pantry is first a servants, room, and at the end a larger sleeping-room, to which access is had by a passage from the end of the hall, passing the servants' room.

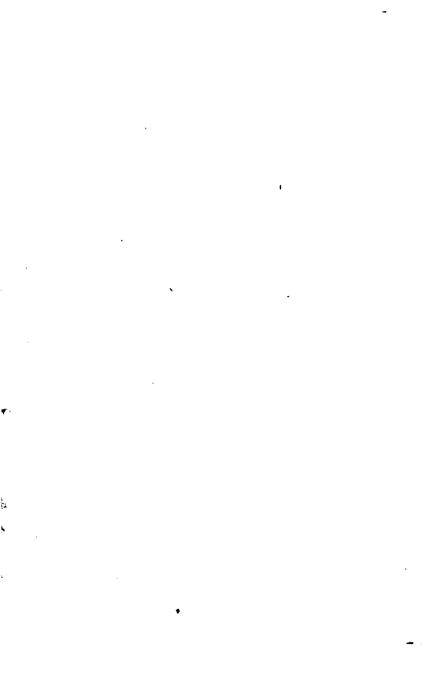
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The hall is lighted by a small window under the eaves corresponding with the window in the gun-closet below, and the passage leading to the chamber over the kitchen, is also lighted by an eaves window.

There are closets to each room, one above the storeroom, for the use of the chamber over the dining-room, one to the room over the parlor taken off from the small dressing-room in front, and one to the servants' chamber and room adjoining placed between the two.

In addition to this a peculiar arrangement of the gable walls of this floor gives an opportunity for making shelves and presses, and other conveniences in the following manner. The stone walls are only carried a height of fourteen feet above the base,—this, with the space occupied by the rooms below, and the floor timber, gives a height of four feet in the rooms—the walls in the kitchen building are not so high. Upon the top of these walls a beam is laid, forming the collar of the roof and also the plate or sill of the windows. Upon this, struts are put out at right angles, supported by simple wooden brackets on blocks below, and from this point upwards, the gables are filled in with plank, or

clapboarding laid upon rough boarding over studs, and, plastered on the interior, forming within a deep recess or offset to the rooms. A glance at the exterior will explain the manner in which this is done; and the effect, it will be seen, is both picturesque and gracefulwhilst such a mode of construction preserves the walls -gives greater room and saves expense. The under side of this projection should be deafened with mortar and covered with plank, slightly inclined towards the build ing to readily allow moisture to run off. The sides of the room, adding wall-plate and pitch of rafter, will be about five feet six inches, and the ceiling may be as lofty as the slope of the roofs will allow. The finish of this cottage should be very plain, and at some time the owner may bring a roll of wall papers from town and make the interior as cheerful as his taste and own handiwork will permit. The mantels should be merely substantial shelves of wood planed and oiled, supported by blocks, cut into some easily-worked form and let into the walls. In the rooms above, a rustic effect may cheaply be obtained by letting the stude at the end, and the rafters of roof overhead, be deeper than usually made—filled in to within a couple of inches of their outer face, with plaster, and the ends finished by being chamfered and planed and the wood oiled and varnished. By papering between, in strips of some very small pattern-or using a grained wood-pattern paper, a rustic character can be given to the rooms in harmony with the general style of the house.



With laborers tolerably skillful to build the walls, a saw-mill at hand, and timber in the neighboring forest, a very small expenditure in money would suffice to erect it. Twelve hundred dollars would certainly do it, and in some localities, eight to nine hundred would suffice. The finish however must be very plain, and the materials upon the place.

The characteristic of the exterior have a special peculiarity in the architectural treatment of the rear—and therefore the view is taken from a point that most readily explains them. A prominent feature is the dwarf tower, forming an abutment, as it were, to the inclosing walls of the yard. This is carried up of stone to the height that its form is square, and the portion above that is of wood. The walls are built upon the inside in such a manner as to incline inward at the angles, so as near the top to easily be built upon the octagonal plan necessary to receive the wooden base of the super-structure that crowns them. This can be roughly done—and after the walls are laid, the exterior may be trimmed with a hammer, and the slopes left tolerably regular as shown by the drawing.

By the side of this an open way, coped with masonry and slabs of stone, is left in which gates may be hung if wished, but should be of very light appearance, and open, rustic make.

Upon the other side a buttress is shown, with a small window on either side of it—one to light the wood-house, and the other, the outbuilding shown upon the plan.

The top of this wall is coped—as is the gablet above the gateway—either with slabs of stone, if the neighborhood affords them, or with timber, and upon the inside of the wall a lean-to roof comes immediately under the coping.

The roofs are of simplest possible form; they project over the eaves and gables, and are finished by allowing the timbers to be extended beyond the walls with a saw cut termination to their end. There is no cornice other than a strip nailed over the end of the roof boarding and shingling, and the covering may either be shingles, slabs, or plank and battens, as the neighborhood renders most conveniently used.

The window-frames are heavy, formed with upright supports or mullions dividing their width and helping to sustain the cap-stone above, and the outer doors should be planked up and down upon a light frame and the joints covered with a rounded batten.

The veranda in the side opposite to this may be of rustic character, like many that have been previously described.

The yard should be graded so that its moisture may readily run off at some point away from the house, and would probably, most easily be made to discharge itself into the vault in the corner, formed by carrying down the foundations of the tower eight or ten feet, or as low as the ground will permit without too costly an expenditure in excavation.

The finish of the small spire crowning the dwarf tower should be of the same material and character as the other roof, and if the owner had the opportunity of sending to the place the ornamental vane with which it is terminated, a fitting completion of this portion of the design would thus be given to it.

Instead of painting such portions of the external woodwork that protection from weather would require to be coated in some manner, a mixture of oil, tar and turpentine would be found more durable, and would produce an effect better in accordance with the character of the building. A mode of mixing such a liquid will be found described in the concluding chapter of this work.

The scale to which these illustrations have been drawn, is the same as that used previous to the last section—namely one inch to twenty feet—this scale will be preserved in all subsequent plans, unless special exceptions are noted.

The house of large size—one in which the family intend to reside several months in the year, and the owner of which, having few calls to the distant city for business, desires may be so contrived as to render occasional winter residence convenient and agreeable, is the demand that the next design is intended to answer.

Such a cottage would differ from the suburban villa, or country home, only in its more free expression of architectural style, and in the provision, upon its plan, of apartments rather adapted to pleasure occupancy than to constant family use. In giving this character to a cottage ornée that affords accommodation sufficient for a large number of residents, two difficulties occur—one

in the temptation to make the external appearance fantastic and whimsical, and the other in the liability that such plans present of sacrificing comfort to the fancied necessity of allowing display of any and every kind of architectural knick-knackery that the design may suggest.

At one time such grotesque exhibitions of folly were all the rage—but the growing good sense of the people leads them now to demand a home instead of an architectural bird-cage. Circular towers, octagonal rooms, battlemented parapets, and all the finery of the very worst styles of pseudo-middle-age architecture, have freely been lavished upon the country dwellings of a modern American family—so freely indeed, as almost to disgust a sensible man with any other style of building than the old-fashioned square box of his forefathers.

Such marked features as are alluded to, can only justly be employed when, in the first place, the character of the scenery imperatively demands a picturesque outline in the building; and when thus used they must evidently accommodate some want of domestic convenience, or there will be no true pleasures derived from their contemplation.

The beauty of simple forms, honestly used, is the highest charm that, to my appreciation, a building can possess; and the graceful blending of outlines formed by the adaptation of a somewhat irregularly shaped edifice, to the ground upon which it stands, will result

in a picturesque object more truly beautiful than whimsical planning and ornamentation can effect.

Therefore the design selected to illustrate these remarks and to show what the summer cottage of a family should be, represents a building of simplicity most rustic, with an amount of accommodation suited to summer wants or permanent occupancy, and in a style capable of expression in the most retired country place, by inexperienced workmen, and with no other materials at hand than the woods around afford. The provisions for luxury, such as plumbing, warming &c., are all supposed to have been forwarded from the city with the aid of competent mechanics to put them up.

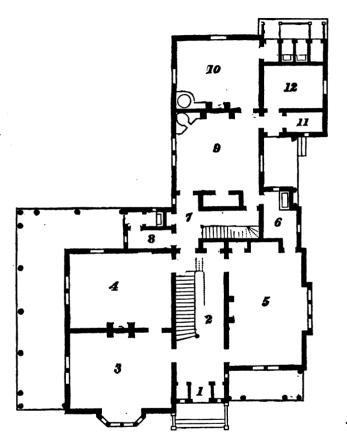
The situation for which the building was contrived, is nearly the summit of one of a range of wood-crowned hills overlooking the rich valleys of the Housatonic, in Berkshire County, Massachusetts. Although elevated, the situation is sheltered by higher peaks, behind, and by lofty trees that crown the mountain. From the site of the house a view of great extent and beauty lies quietly below, and there is an air of quiet and repose about the place that seems fitly in character with those feelings, that would tempt the construction of a summer abiding spot thereon. Every variety of scenery is aroundwater and wood-plain and mountain, and in the immediate foreground winding declivities come into sunshine or fall into shadow beneath the eye-and a rich vegetation robes the rocks and bowlders at the feet. The soil, though sparsely timbered, is rich with the decaying

vegetation of ages, and here and there pockets of deeper mould, afford opportunities for garden cultivation, like the scooped-out basins on the sterile mountain sides of Styria, which in these little hollows contain soil so rich and fertile as to afford sustenance to the roots of grape-vines, whose mighty arms and runners intertwine all over the hill-sides and stretch many score of feet from their rooting-place.

Water is upon the sides of the hill in great purity, but for household purposes, it is determined to form a very large reservoir or cistern in the ground, which its rocky nature renders easy, and to lead all the rain from the roof into this common receptacle, whence a force-pump and requisite pipes distribute the water through the house.

The foundation walls are of the stone that the necessary preparation of the site brings to the surface, and a cellar is formed under the whole building. The principal floor, however, is not raised greatly above the level of the ground upon the entrance side, but the rock falls away so rapidly upon that side upon which is seen the veranda, that the space in the cottage is well lighted and made airy by windows towards that exposure.

The plan is arranged thus. In front, a few steps, protected by an overhanging balcony to the window above, lead to the hall door, which opens into a vestibule, No. 1, on either side of which are hall closets with sash doors towards the inner hall, and narrow windows upon the exterior.



PL LI.-COTTAGE ORNÉE-PRINCIPAL FLOOR.

Within this is the inner hall, No. 2, and in it the principal staircase. This hall is ten feet in width, and, exclusive of the entry and closets, twenty-eight feet in length.

Connecting with it upon one side is a drawing-room, No. 3, with a projecting window in front, and a double window opening on to the side veranda; its dimensions, exclusive of bay-window, are twenty-two by sixteen. In the rear of this is the library, No. 4, the same size as the drawing-room, with the exception of the space inclosed by the projecting window. In this room are double windows to the veranda at the end, and one upon the side, corresponding to which is a recess in the wall for a mirror, the finish around which should be the same as that to the window, and the symmetry of the room will thus be preserved.

Upon the other side of the hall is the dining-room, No. 5, a fine apartment sixteen by twenty-four, exclusive of a recess at one end for the sideboard, and a projecting window upon the side. The room also contains a closet, and attached is a pantry or waiters'-room, No. 6, with a sink, and a door connecting with the kitchen.

At the end of the principal hall a sash door leads into an entry, No. 7, from which is the back staircase to cellar below and floors above. In this is a closet for fishing apparatus, baskets, &c., and from it a door leads into a dressing-room, No. 8, containing wash-stand, water-closet, and an outer doorway leading to the veranda.

Beyond these is the kitchen, No. 9, a large, well-lighted room, with a large closet at the end opposite the fire-place, and next the latter, provision is shown for an old-fashioned brick oven, if the family desire such an

appendage. The fireplace is of large size, suitable for a Metropolitan range, and roaster.

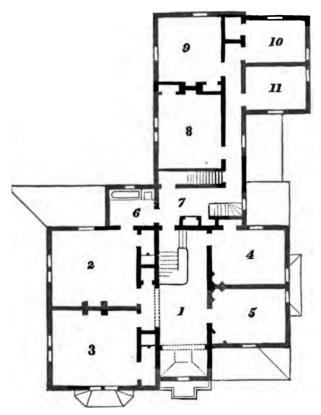
In the rear of the kitchen is the laundry, No. 10, with a boiler inserted near the fireplace, and from this a door leads into an entry connecting with a platform conducting to the outer yard, and, as shown by the plan, two water-closets, and a tool-house, are inclosed within this portion of the building. The remaining portions of the plan are, No. 11, a larder, and 12, a small wood-house for the storage of fuel for immediate use. A side veranda shelters a rear entrance to a hall leading to the kitchen &c.,—by the side of the larder, and examination will show that every comfort and convenience has been secured, in the arrangement of the plan of this floor. The height of the rooms in the main part of the house is eleven feet, that of those in the kitchen wing, nine feet six inches.

The chamber plan shows a large hall, No. 1, at the end of which an arch opens into a lower bay, from which is a window on to a balcony. From the side of the hall a similar arch leads into a vestibule conducting to a chamber, No. 2, by the side of which is a large hall closet, and in the room itself one of ampler size and fitted with drawers.

In front of this is chamber No. 3, and at its side a large closet. Upon the other side of the hall, above the dining-room, are chambers 4 and 5, with closets.

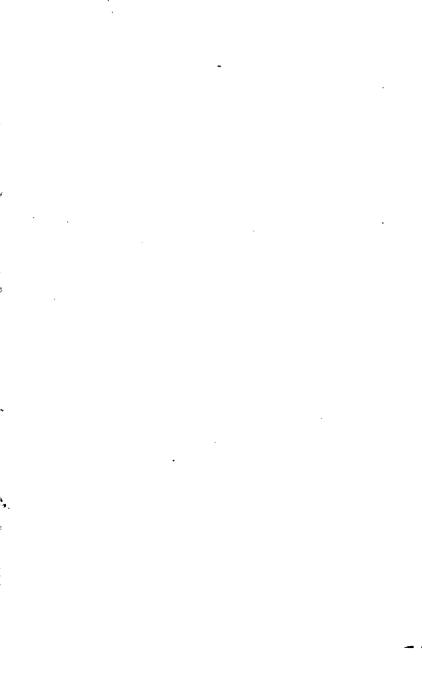
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The wing building contains a bathing-room, No. 6,



PL. LII.-COTTAGE ORNÉE-CHAMBER FLOOR.

which is provided with a door into chamber No. 2, so that in case of necessity they could be used in connection. The entry, No. 7, has in it a housemaids' closet and sink, and under the stairs which lead to the space in the





roof above the ceilings, in the principal body of the house, is a large linen closet.

No. 8 and 9 are large bedrooms, each one provided with a fireplace and closets, and 10 and 11 are sleeping-rooms of smaller size.

In the front part of the house the high pitch of the roof affords an opportunity of partitioning-off, if wished, three good sleeping-rooms for servants, though independently of the increased accommodation thus capable of being made, the plan shows that a liberal amount of room is laid out upon this floor.

In finishing the interior, very little of display should be attempted. The wood-work, if wished, may be oiled and varnished instead of painted, and the hall, dining-room, and library, panelled at least a portion of their height. But though having a rustic appearance, this mode of finish is more costly than plain painting would be, and it must be done thoroughly, or after a very few months' use it will look rough and unfinished.

All the blinds are made to slide into the walls, and the material is of frame, covered with rough boarding, then with upright plank and the joints closed by chamfered or moulded battens.

The exterior has the high roofs and overhanging eaves, that protection of the walls and congruity with the peaks and soaring trees around would suggest.—The architectural details have an expression which is eminently rustic. The pointed element is preserved throughout where its principle finds fitting embodiment, and in

some of the minutiæ, such as window-heads, &c., a rounded arch is occasionally introduced for the purpose of connecting the necessary parallelism of portions of the building with the general upward tendency of its leading lines. In such cases, the use of the rounded arch is frequently valuable, and although it is not worth while to disarm criticism by an appeal to precedent for so simple a matter, it may be remarked that the comparatively modern buildings of Southern Europe abound in examples of the rounded and pointed apertures, showing clearly the comprehension of the necessity of some middle form to connect the antagonistic principles of a vertical and an upward-pointing architecture.

The cornices, barge-boards, ornamented framing of roof, and such like details, are all of simple form. In these, a thinness of material is the evil that should most carefully be avoided, the inch-board finery of modern Gothic being an example of how easily the ornamental features of a beautiful style may be vulgarized, and the very style itself by such means be brought into contempt.

The chimney-shafts of this building are of brick, and their tops are carried unequal heights; but to prevent trouble in use, an opening must be left on each side in the highest portion, so that the draft across the top of the whole may be equal. Or these may be purchased in the city, of terra cotta, and sent up, and excepting in situations where freight was very high, probably the cost would be no greater than to build them of brick in an ornamental manner.

The cost of this building, finished fully, including a large furnace to render the house comfortable in case of winter occupancy, plumbing and painting, would depend upon situation; in the instance for which the design was made, the contract, comprehending all these, was about six thousand dollars, but a very careful finish was insisted upon, and the house contains all the appendages found in a suburban villa.

The veranda posts are such as have before been alluded to, and may be either of a single stick of timber from the woods, with the bark adhering, or may be formed of three or more straight stems of smaller diameter grouped together, the latter frequently affording the most pleasant effect when carefully and tastefully done.

In painting the exterior, a darker tint than the general hue of the building may be given to the projecting portions of the details. This must be done, however, with caution.

The outbuildings should partake of the same general character as the cottage. The stables, situated so as partially to be be concealed from the house, and yet near enough for convenience, should not be too high, or the cottage itself will be dwarfed; the sharp pitch of the roofs will give loft-space enough, without the posts being too high, and as the building would probably be placed upon sloping ground, a portion of the stable may, perhaps, be below the principal floor. Near at hand should be an ice-house with truncated roof, shingled in

an ornamental manner, and its apex terminated by a ventilator.

About the place rustic seats, bark flower-baskets, and other ornamental features, in harmony with the scenery, should be disposed, and as the rocky character of the site would only permit partial flower cultivation, creepers and flowering parasites should be trained round the trunks of the trees, and in sunny exposures many fragrant lichens and other plants, suitable to rock culture, should be cherished.

Although designed for a situation like that which has been described, this cottage ornée would not be inappropriately placed amid scenery less bold. The necessity of its proper placing, however is that it be surrounded with trees; and therefore any site, that is not absolutely flat, which is well-wooded, would be suitable. To secure its entire effect, the cottage should be seen against a background; and therefore seated upon a hill-side, with woods behind it, and embracing it on either side, an open space in front, broken here and there by groups of stately trees, it would appear to great advantage.

Designs of the class of houses understood to belong to that of which this chapter treats, might be multiplied, but there appears no utility in offering more than the two that have been given. The former fairly represents a type of a house in not unfrequent demand, which may be considered to afford the minimum of accommodation such a cottage should possess; and the latter exhibits one upon as extended a scale as can ligitimately be contrived; as a step beyond this would change its character to that of the summer mansion or country residence.

With a few remarks, therefore, upon a feature that may be considered an appendage to such homes, this chapter will close.

An appropriate adjunct to such homes as this chapter seeks to describe, remains yet to be sketched in the shape of a gate-house or entrance-lodge.

Estates, farm-like or wild, of such extent as to place the house at considerable distance from the public road, require some cottage or farm-habitation near their point of entrance, at which inquiries can be made without compelling a long walk or drive to the hall door, sometimes, upon a fruitless errand. Many of the little cottages thus designed are frequently toy-houses, and homes but of little comfort to the occupant. The porter's lodge of Europe is not what is needed here,—but a convenient cottage, near to the road—and of an appearance according with the other buildings upon the place, is both of great use and comfort. The nature of the farm or country place will best determine for whose

use such a cottage can be made a home; and whether gardener, tenant-farmer, or hired helping-man, the few duties rendered necessary by propinquity to the entrance-gate may be performed without inconvenience or loss of time.

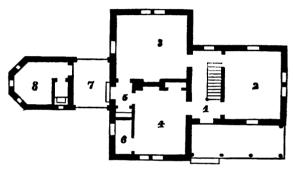
Such cottages should only differ from those elsewhere in their finished appearance, and the neatness of the ground or little garden around them; and as they are adjuncts to the estate of a man of wealth, their style should show unity of purpose with the other erections upon the place.

The form of the gate-house may be varied to suit the locality, and the plan may assume any irregularity of outline that the desire to obtain a picturesque appearance may lead the owner to adopt. Too whimsical a departure from architectural forms and simplicity of composition is in bad taste, and in the design offered as an example of a plan suited to such a purpose, a form of extreme simplicity has been selected.

Such buildings should accommodate a family in a comfortable and decent manner, and should allow one room at least as a cheerful sitting-room, which may be neatly furnished and afford an opportunity for display of farm housewifery and rustic elegance. One important feature is the proper arragement of the small yard and necessary outbuildings, which should be so contrived, in reference to the cottage, as to be always neatly appearing and decently screened from observation.

The material used for construction of the cottage

would somewhat modify the plan, but as a fair example of a building containing all that a family would require in the way of house-accommodation, the following design will be found suitable. It has been erected of stone, the masonry roughly laid, and the wood-work of porch, windows, &c., of a simple and rustic character.



PL LIV.-GATE-LODGE PLAN.

The plan of the first floor, under which is a cellar, is arranged as follows: The outline of the main building is somewhat that of the letter T, and connected with it is a low inclosure, roofed over and containing the adjuncts that convenience requires near to the house.

The entrance is under a rustic porch or veranda, of which the supporting posts may be of timber from the forests, with the bark remaining thereon, and the floor formed of blocks of hard wood, from five to seven inches diameter, cut about ten inches long, and placed on end upon a foundation of earth and broken stones; between these blocks smaller pieces may be driven, and the whole thus wedged together will form a very durable and rustic-looking floor.

From this the entrance-door opens into a hall, No. 1, six feet wide, and containing a staircase to the second floor, and under it one to the cellar. Upon one side of this hall is the best sitting-room, No. 2, the windows of which are wide and cheerful, and for winter-time a stove may connect with a thimble, which is built under the stairs, and carried into the chimney-stack shown in the other part of the house. This room is about fifteen feet square.

Upon the other side of the hall is a living-room, or bed-room, as the family may prefer, No. 3; a kitchen No. 4; an entry, with sink therein, No. 5; and a large store pantry or larder, No. 6. The living-room is of the same size as the parlor, and the kitchen is about ten feet six by fifteen. These rooms are comprised in the main body of the building, and from the entry, No. 5, a rear door connects with an open space, No. 7, screened by a lattice door and fence on either side, and covered with a roof above. In a line with this the out-building is continued, affording accommodation for a wood-shed. No. 8, and within it a necessary. By the arrangement of this portion of the plan no unsightly out-buildings are displayed around the building, and upon the rear side of the cottage a yard and vegetable garden would be inclosed if necessary.

Upon the floor above are three sleeping-rooms, each





one about fifteen feet square. They are provided with closets, and in addition a large clothes-press is partitioned off from the end of the hall on the second story. This hall is also made more airy, and the atmosphere of the chambers increased in healthfulness by an opening in its ceiling conducting to an air space in the roof, from which heated vapors pass off through an external ventilator, shown upon the view of the exterior. From each sleeping-room air-ducts with valves connect with the air-space in the roof, and the upper panels of all the doors are provided with turning slats to be left open at pleasure.

The finish of the exterior is in a style of rustic simplicity, such as unornamented construction in the materials at hand would most readily allow. The porch in front is of natural wood, with twining roses and honeysuckles trained over its posts. The windows have projecting caps, and within are turning blinds. The roof is shingled, and the chimney-shafts are of terra cotta, of American manufacture. The walls are built of grey stone, laid in somewhat regular courses in a natural bed, and left rough.

A small and neatly finished garden is in front, between the cottage and the gate, and a dwarf stone wall banks up the earth so as to sufficiently elevate the ground floor of the building above the outer road.

The gates and gate-posts are shown in connection with the cottage, and are of character consistent therewith, and form an appropriate approach to a gentleman's place.

The piers are built of soap-stone, brought from the quarries in Massachusetts, and were manufactured by a company in New York, formed for the purpose of working and introducing this somewhat novel material. The color is a soft and beautiful dove-like grey, and the stone, although very soft when newly quarried, it is said becomes extremely hard by exposure, and is remarkably durable. For use in cities, and for many building purposes, the material is a valuable addition to the list of stones placed at an architect's command; and as it is both fire and waterproof, and is very easily cut, there are many temptations to employ it. It has, however, proved too soft and easily bruised for a purpose like that at present described, where, of course, the posts are liable to be scratched by passing loads between them; but, in other instances, where I have employed it, there has no such objection been found. For chimney-tops, caps of doors and windows &c., it is peculiarly adapted, whilst its soft tint and freedom from micaceous sparkle, render its effect peculiarly suitable to a country building. The cost of the four posts-two of which are very large and heavy, and the whole requiring much careful workmanship, was but two hundred dollars—a less amount than other varieties of stone would require.

The gates are of open frame—the timbers chamfered, and the whole braced and rendered more close by iron rods placed between them.

The cost of this lodge, built of stone readily at hand,

and finished plainly within, would be somewhat more than a cottage affording the same amount of internal accommodations placed elsewhere would require. In this case, the expenditure was between sixteen and seventeen hundred dollars, built by days-work, and the inside finished with blinds, and all the wood-work grained and varnished.

The plan of this cottage would render its erection convenient for other occupancy than that especially intended by the design, and it, therefore, may be considered an example of an inexpensive cottage home for a country family. Other material than stone could be employed, and the expenditure brought, in some localities, considerably within the sum named.

CHAPTER VII.

THE CHEAP HOME,

IN CITY, SUBURB, AND COUNTRY.

The provision of an inexpensive dwelling for a family, in city, suburb, and country, is a matter of great importance, and perhaps no portion of an architect's practice has been so usefully bestowed as that which has been devoted to the study of a plan for a tenement-house, cottage, or farm-building for the occupancy of those who have to calculate every item of house-keeping cost, and who, living by mechanical labor, have need of frugal employment of their means to bring up a family in respectability and comfort.

In the vicinity of large cities, the want of healthy and cheap homes for families is now painfully felt. Lots are too costly to allow the erection of a single house for separate use, and there has been, until the last few years, no alternative but the boarding-house in the city, or the separation of the father from his family, by providing accommodation for the latter in the adjoining country places.

The experiment has been tried in New York and

elsewhere of erecting upon large blocks, houses divided into separate homes for family use. Each one with its own provision of kitchen and other conveniences, and divided into floors in such a manner that a common hall and staircase serves for all. In London, the plan has been adopted with very marked success—and homes for families who require luxury and elegance are provided equally with cheaper living-places for the laboring poor.

In this country—the rapid increase of the population of the large cities, demands suitable provision for their accommodation, and although the plans given throughout this volume have rather offered homes to the people in the suburb and country—I have thought that a few remarks, illustrated by appropriate designs, adapted to the wants of the numerous class that now are, as it were, homeless, may fitly find place in this chapter.

The intention is to offer a plan for the comfortable accommodation of those families whose means will not permit the hiring of a separate house, but whose respectability and domestic habits forbid other than a quiet and decent mode of living, and who can neither sink to the discomfort of the cheap cottages in the outskirts of the city, and which are generally little better than shanties, nor are willing to lose the influence of home ties and associations by dwelling in a boarding-house.

A house adapted for the residence of a poorer class is not offered—for the necessity of its provision arises but from the overgrowth of large cities, and the circumstances of location and size and shape of the lot are too various to be fairly met by the brief space that the scope of this volume can bestow.

The general excellences a tenement-house suited for respectable families of limited means should possess, may be briefly enumerated as follows:

Perfect separation of each dwelling.

Abundant supply of air and light.

Provision of separate conveniences to each family.

A mode of construction as nearly as possible fire-proof.

Such a plan as will in a limited space give the greatest amount of comfort.

The first is absolutely necessary, and can only be gained by considering the door to each dwelling as a street door, which when closed secures all within it. The halls and passages that are required in common should be so disposed as to permit each family to enjoy its own rooms entirely undisturbed, and to feel that when its own private door opening into the passage is closed, there is no possibility of intrusion. In addition to this, every dwelling should have all its appliances for comfort and decency self-contained, and with the exception, perhaps, of a store-cellar for coals, wood, or bulky articles, divided into separate compartments, each one accessible only by the family for whose use it is

assigned, there should be no necessity for going out of the space inclosed in the one tenement for any purpose whatever.

· The supply of a due amount of light and air, is in a crowded city somewhat difficult, but, as the design presently following will show, it can be done by careful planning, even in a situation like that of a deep building in a continuous row; and where the owner has the advantage of erecting the house upon a corner lot, additional advantages can be secured. The healthfulness of each dwelling will materially depend upon adequate supply of the means of ventilation. Nothing can countervail the absence of such provision; the simple means placed within every builder's reach by modern science, leaving no palliating excuse for not thoroughly attending to this important matter from the outset. The halls, stairways, and passages, can by proper disposal, one to the other, ventilate themselves, but the rooms must be aided by artificial means. Of these, the most reliable and simple is in the construction of fireplaces and flues to every room. In England such a thing is now made compulsory by law, and it would be well could such a regulation be enforced here. Where, as in inner rooms, forming an enlargement of adjoining apartments by sliding doors, this cannot be done, air-ducts can be carried above the ceiling, inserted between the flooring joists above, and made to open into perpendicular shafts in the partition-walls, and by grouping all these shafts together, and connecting them with some one flue from

the lower floor, in which a fire is constantly ignited (as for instance kitchen or laundry), there will always be gained a sufficient ascending power to carry off the vitiated air poured into the several shafts from each room. In building these flues or shafts, they should be very carefully and smoothly finished, or parged, as it is technically called, and the divisions between each should be as thin as possible—the most suitable material for such partitions being tile. This remark is worthy strict attention, for its usage involves an important law in ventilation. These shafts-and, in fact, all air-ducts, -must open into each room not only near, or on the ceiling, but also just above, or level with the floor. All water-closets and sinks should be ventilated by a trough or pipe (which may be of wood) leading from just below the seat in the former, and from the trap of the latter, and connecting with one of the discharging flues. so doing, every time the lid is opened, a rush of air will pass downwards and carry off all effluvia along the pipe and up the ventilating shafts, and all unpleasant odor be prevented penetrating the building.

The requirements of decency compel attention to the proper provision of separate water-closets for each dwelling, situated in a retired and easily ventilated position, and each one comprised in the arrangements of the rooms assigned to each family. Houses professing to afford homes for families, have been constructed in New York, and this very important matter overlooked. Recent disclosures show that tenement-houses need

reform as much in this particular as do the emigrant ships.

A mode of construction as nearly as possible fire-proof, it is as much to the interest of the owner, as the indwellers to insist upon. The most fertile cause of the spread of a fire in a building is in the spaces around the room, in wall, floor, and ceiling, which allow a draft of air to fan the fiercely raging flames. Could these be stopped, a great point towards the extinguishment of a fire would be gained, for although the floor, doors, windows, and other portions of a room, are of combustible materials, these play a very secondary part in carrying the fire. Expensive modes have from time to time been recommanded, and iron has been largely used in the construction of modern buildings; yet a very significant fact appears to have received but little attention. It is that in London, statistics show that the proportion of dwelling-houses destroyed by fire is excessively small in comparison with the results shown by the fire reports of American cities. Why is this? Mainly because party walls are thicker, and there is rarely any furring out. I suppose it is possible to make a dwelling absolutely fire-proof-so that, should combustion break out in any one room, it would expire of itself without doing damage other than to the article ignited; but without inquiring what mode of construction can be employed to effect this, a few simple precautions should suggest themselves to every man that builds a tenement-house,

where, from the number of inmates, his property is exposed in a very great degree to danger.

In the first place, all the brick walls should be built hollow; that can readily be done with materials everywhere at hand, but it is to be regretted, that manufacturers have not yet introduced the hollow bricks now so largely used in Europe—the employment of which has worked a revolution in many matters of internal structure.

In the second, the inner surfaces should be plastered without the intervention of studding—which can be done at considerable saving of cost by laying strips every three or four courses, on which to fasten the groundwork to receive the plastering. In doing this, wire gauze, the metal covered either with japan or galvanized (to prevent corrosion), is recommended instead of lathing.

In the third, all inside partitions should be solid; perhaps made of rough boards, placed upright, the joints covered with half-inch battens, and the space thus left between each batten flushed smooth with common mortar. Upon this the wire gauze may be attached by nails to every batten, and plastering laid thereon.

In the fourth place, all smoke flues should be built of the best bricks, and in parging them, two pounds of powdered alum should be mixed with every barrel of lime cement.

The floors and ceilings really are but little dangerous.

It is only when intense heat cracks the plastering of the latter, and causing it to fall off, brings the floor joists to exposure to the flames, that combustion affects these. To guard against this—let the joists first be coated with a wash of lime white or plaster of Paris, which is a well-known fire resistant, and let the ceiling be formed of plastering upon wire gauze. These precautions, with the usual deafening to the floor, will retard any progress of fire in a lower room to those above it.

The doors and wood-work of a room are really no more dangerous than the furniture, and can be, to a great extent, protected by use of some fire-proof paint; and in this connection I would say that whilst in Europe, two years ago, I was particularly struck with a plan adopted in all the newly-built houses I saw in the outskirts of London, by which the amount of internal wood-work was very much decreased.

The bases, door and window casings, &c., were all of a very hard and tough composition, which was run in a mould while wet (like a cornice) and which, when dry, would neither chip nor shrink. It was afterwards painted any color wished, and permitted a neatness and sharpness of finish not attainable by the usual material employed.

In adapting to the lot a plan that affords the greatest amount of internal comfort, the space must be divided so as to place the rooms in convenient relation to each other, and to the common hall that conducts to

them, and at the same time give to each one all the outer space for window-openings, that the arrangement of the building will permit. In a house occupying a frontage of twenty-five feet, this can easily be done, as the following plan will show; and to a less frontage, nearly all the accommodations shown can be adapted by reduction of the size of the passages and of each internal room.

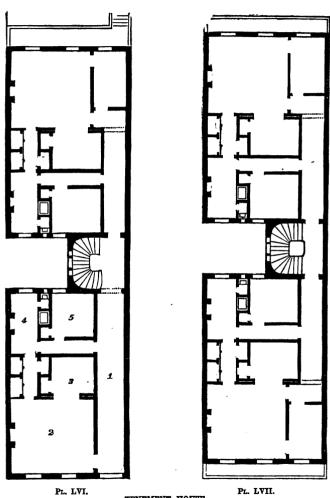
The following design illustrates the above remarks, and is made so as to offer, upon a suitable scale, all the comforts of a distinct dwelling to each family that occupies the several divisions.

The plan represents a building occupying the entire block of a city lot, twenty-five feet front by one hundred deep, an area of ten feet front being, however, left in the rear.

Upon each floor are residences for two separate families; and in the basement are cellars, space for furnace and hot water supply, and rooms for the occupancy of the persons who take charge of the building. Exclusive of the basement and cellar there are four floors giving accommodation for eight families.

The ground floor is entered nearly upon the level of the sidewalk, an area with iron railings fronting upon the street, being made in front, with windows to light the basement.

The front doorway leads into a corridor or entrance hall, No. 1, upon the plan, which is six feet in width, and conducts to a square stairway leading to the floors



TENEMENT HOUSE.

FIRST FLOOR.

SECOND FLOOR.

above. Upon one side of this hall is the first dwelling, occupying a space of about thirty-eight feet in depth, and containing in front a cheerful parlor, No. 2, which is about seventeen feet front and fifteen deep. This room has two windows towards the street, and is provided with a flue and fireplace.

Opening from this room by sliding-doors is a chamber, No. 3, eight feet by ten, and containing a large closet.

Next to this is an entry-way containing store and other closets and connecting the parlor with the kitchen, No. 4. In this latter is a sink, and from it a door leads into a water-closet. From the kitchen an inner passage conducts to the general hall, preventing the necessity of passing through or near the parlor, and in addition is a sleeping-room, No. 5, which is ten by nine, and contains a closet.

The kitchen, water-closet, and this chamber, are lighted by windows open to an area in the centre of the building.

Beyond the staircase is a second dwelling, arranged in a similar manner to the first, excepting that there is an additional bed-room taken off from the end of the hall, and the parlor, which has its windows open to the area in the rear, is not so wide by two feet. The height of this story is eleven feet.

Continuing up the staircase, each landing conducts to dwellings arranged as in Plate 57. These comprise a parlor, kitchen, sink, water-closet, store-rooms, closets, and three bed-rooms, and as with the exception of height, each floor above resembles this, further remark is unnecessary. The height of the second floor is ten feet, of the stories above, nine feet each. If in situations that would render such an addition desirable, a further story could be added.

In this plan, each house has its own private door, and contains within itself all the conveniences that family comfort requires.

In the basement should be a heating apparatus sufficient to warm every room in the building, and in addition, a supply of hot water should be contrived for culinary purposes, so that no tenant need, unless at his option, have any fire in his dwelling, but for a short time in each day when dinner was being prepared. Even this necessity would be obviated by the introduction of a cheap and simple gas-cooking apparatus such as can now be procured in all the large cities. Also in the basement should be a spacious wash-room and laundry for the use of the tenants, who would pay a small sum for the accommodation. Coal cellars—one for each dwelling-might also be provided in the space at bottom of the open area in the centre of the house, and if necessary a hoist-way could be contrived connecting with an opening into the kitchen of each dwelling.

Upon each floor immediately by the stairway is an iron trap communicating with a close flue running down to the cellar below, for the purpose of sweeping the rooms of each dwelling into one common receptacle, and

thus materially diminishing the labor of keeping each room neat and clean.

In building upon such a plan as this, the following hints may be regarded.

In the outskirts of a city, when the whole block may be filled by a row of such buildings, they should be so arranged one with the other as to permit the open area of one to come against that of the other, and the frontage may, if thought desirable, be reduced in width.

A further change may be in converting the first floor



PL LVIII .- TENEMENT HOUSE-STREET ELEVATION.

front into a store, and in the rear the dwelling would be convenient for the occupants of the store to reside in.

Supposing the situation to require an exterior of neat appearance, the preceding design will serve to illustrate the finish that its front may exhibit.

The whole of the work is represented of such a character as can be executed in brick, with the exception of the window-caps and sills, &c.

Upon the second story is a balcony of substantial character, and the staircase walls are shown continued above the building as a tower or campanile, to give light as well as air to the halls and passages upon each floor.

If the whole building is warmed by furnace or steam, there will no difficulty in securing an effective ventilation by simply providing chimney flues to the rooms, and as the heat can readily be brought into each dwelling in such a manner as to cause no waste by diffusion in the outer passages, a very moderate amount would be sufficient to provide for in the general apparatus.

The cost of such a building would vary so greatly in different cities that it is hardly safe to assign any amount as adequate to its due finish and erection. In New York, ten thousand dollars would amply suffice; the whole finish of the interior being of a plain and inexpensive character, and the fixtures incidentally alluded to, such as general heating-apparatus and water supply, being left to be embraced in a separate estimate.

As a matter of speculation such a building would be

made to yield a large interest, and even at low rents for each dwelling, a better income would be derived from such an edifice, than by any other usual occupancy of the lot.

A plan, affording collected homes for families on a still more extended scale, the building occupying a frontage of from fifty to one hundred feet might be offered, but for the reason before given, a work of civic architecture is better adapted to its discussion; the reader will however find in the January number of the London Art Journal for the present year (1855), at page 21, a description, with illustrations, of a building intended for this purpose, which will repay close study by any examiner who may be interested in the subject.

From the city to the suburb is a natural transition, and the next illustration is of an inexpensive dwelling, forming one, in a row, or a detached house, as the case may be; although if the latter, it would probably only be built simply in consideration of the probability of neighbors being presently reared against it on either side.

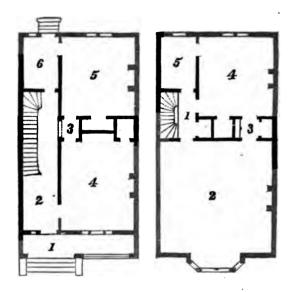
No class of house needs the tender care of an architect so greatly as does this; built generally by speculating builders, in the cheapest possible manner, nothing but the necessity of a home somewhere, would ever

permit a family to take possession of nine out of ten that every spring sees offered for sale or tenancy, and it is a common remark that when rents of first-class houses fall, those of the small dwelling, suited for a home for those of moderate means, are invariably in increased value. Not only of New York and of its sister cities, Philadelphia and Boston, are the suburbs rapidly filling with rows of dwellings, but in the growing cities of the West and some of the Eastern States a demand every year is most imperatively made for similar accommodation. Even the smaller towns have caught the infection, and builders of houses are beginning to discover the advantages that, under favorable circumstances, attach to the erection of a block of houses rather than distinct buildings divided by spaces intervening.

This section of the work would not be complete without an example of a building adapted to this purpose, and in the following illustrations a plan of a very convenient and inexpensive dwelling is offered—the external appearance of which, seen either singly or as one of a row, has an air of elegance and good taste, with somewhat of novelty of design.

The plate represents the plans of the first and second floors, which are thus divided.

The house occupies a lot twenty-five feet in width, or may be reduced to twenty if economy compels; but in the dimensions about to be assigned to each room, a frontage of twenty-five feet has been assumed.



PL LIX.-HOUSE IN A ROW-FIRST AND SECOND FLOOR.

Under the building is a cellar, lighted by areas and gratings back and rear. In this would be coal and wood cellars, and a furnace if such should be desired.

The first floor is raised by a flight of steps about three feet above the surface level of the ground, thus affording opportunity of properly lighting and airing the cellar.

Immediately in front is a terrace, No. 1, formed by recessing the inner external wall from the outer face of the building; this is divided, by a stone or brick pier, into two arched openings, to one of which are the

front steps, and the other is inclosed by a dwarf parapet or balustrading, as shown in the illustration of the exterior.

The entrance hall, No. 2, is seven feet wide and contains the staircase to the upper floors, and under it a flight to the cellar. This hall might be partitioned off near the entrance, so as to make an inner vestibule if wished; but as the front terrace would, to a great extent, afford shelter, the additional expense of this arrangement deterred me from showing it upon the plan.

From the hall an open arch leads into a vestibule, No. 3, in which are doors into the dining-room, No. 4, and kitchen, No. 5.

The dining-room is a pleasant room, twenty feet by sixteen feet six inches, and has a door that could be omitted or not, as the owner's fancy might direct, opening into the hall at a point near the entrance. In the dining-room is a deep recess at one end for the sideboard, and a door corresponding with that from the vestibule opens into a large china closet.

The kitchen is about sixteen feet six inches square, has a large closet and space for range, sink, boilers and wash-trays. Next to it is, No. 6, a scullery and larder, intended to be fitted with safes inclosed with wire cloth, and ventilated by the window shown upon the plan and by openings above the doors. The height of this story is nine feet.

Above it, the second plan shows a staircase hall

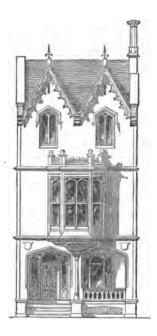
which is continued to the third floor, and receives light from a skylight in the roof. This is No. 1 upon the plan, and connected with it is a large store or linen closet.

In front is the parlor, No. 2, the front wall of which extends over the terrace below, and is supported by piers at the ends and in the centre, as shown by the plan of the lower floor. The dimensions of this apartment are (supposing the side walls to be party walls) twenty-three feet six inches by twenty-five, further increased by the addition of an oriel or hanging window in front.

In the rear of the parlor an entry, No. 3, with closet and drawers, leads into a sleeping-room, No. 4, the size of the kitchen below, and containing a large closet, and next to it is a smaller bedroom, No. 5.

This story is eleven feet high in the clear, and above it is an attic containing four good sleeping-rooms, a large store-room, &c., in the centre of the house, and a scuttle to the space in the roof. The height of this portion of the house is seven feet upon the walls, and ten feet (or more if wished) to the level portion of the ceiling.

These rooms, on each floor, are all of large size, and the sleeping-rooms are airy and healthful in their dimensions and position. If an additional chamber were needed, a servants' room could be made in the attic, in the centre of the building, between the rooms in front and rear, lighted and ventilated from above.



PL LX .- HOUSE IN A ROW-ELEVATION.

The style of the exterior is Gothic, of the Tudor era, and although pleasing in general effect is not over-charged with ornament or costly in design.

The projecting window on the second story, and the double arches below, are the most striking features in the composition; but as the former can be made of wood, and the slender shaft that is shown, which connects it with the pier below, may be of the same material, no fear of expense need deter from executing

this very effective and beautiful portion of the exterior.

The material of which the walls are built should be brick—either covered with mastic or painted. In the West, where the cream-colored brick can be procured, there will be no necessity of painting, and even the ordinary colored brick may be employed, if wished, and a pleasing contrast made by painting the windows, string courses, and other architectural details, in a light tint, similar to Caen-stone.

The two gables in front have ornamented verge boards and pinnacles, and are supported upon massive corbels, made in such a manner as to receive the water from the roofs, that from the centre being carried down a short leader, on to the roof of the projecting window, and thence by a leader in an angle upon one side to the pipe placed upon either outer corner of the front. In the rear, the roof would be finished without these gables.

The doors, windows, and other details, may be understood by the illustration. All are intended to be consistently in accordance with the style chosen, without, however, allowing its requirements to trammel the honest provision of every reasonable necessity of conformity with modern habits and improvements. The same remark will also apply to the interior.

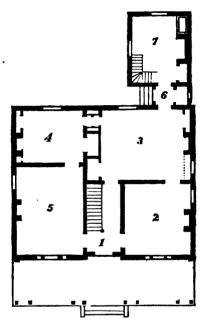
The building, as above described, occupies a block forty-five feet deep by twenty-five feet frontage, and would cost from three thousand to three thousand five hundred dollars, finished in a city-like manner; but in

the vicinity of a country town the expense would greatly be reduced.

Further in the suburb, detached cottages and villalike dwellings are in demand. Designs for these could be offered in almost inexhaustible variety, and the difficulty would be in selection rather than in want of examples from which to choose. Unfortunately, however, the services of an architect are not often called into requisition for their provision, and hence, although plentifully abounding, the small suburban cottage has hardly in this country reached an amount of excellence entitling it to be considered as a model.

In one of the early chapters of this volume, a cottagevilla has been illustrated by plates 12 and 13; and although the introduction of a description of buildings suited to the supply of almost all its identical wants may, in this section, seem somewhat a repetition, there is so large a demand for such homes that, in this chapter especially devoted to the consideration of the inexpensive dwellings of the city, suburb and country, a renewal of the subject is not out of place.

The first design chosen for illustration is one of which the plan is square, with a small wing attached in the rear. Such buildings are in common demand in the vicinity of country towns and in the suburbs of large cities, and may be made far more pleasing in external appearance than country taste usually permits them to be.



PL LXL-SQUARE COTTAGE-PLAN.

The plan exhibits a building, thirty-eight feet front, and thirty-two in depth, with a wing of one or of two stories, as the amount of accommodation needed may require—twenty feet by thirteen.

A wide veranda stretches across the front, and in the centre is the entrance hall, No. 1, with staircase.

Upon one side is a sitting-room, No. 2, which is fifteen

feet square, and in its rear a dining-room, No. 3, fifteen feet by nineteen, provided with a china closet at one end, and corresponding to it an entry with drawers and wardrobe, leading to a bedroom, No. 4, the dimensions of which are fifteen feet by ten.

No. 5 is a parlor, with window opening to veranda, and with one of smaller size at the side. This room is fifteen by twenty feet six inches. All these rooms are ten feet high in the clear. The wing contains a back entry, No. 6, with outer door and store closet, lit by a small window, and next to this a kitchen, No. 7, with a back staircase to the rooms over (if the wing be made two stories in height) and under this, one to the cellar, which should be under the whole house, or only this portion, as the nature of the soil might permit.

The kitchen contains a sink and cook's closet, and is eight feet high in the clear.

The wood-house, necessaries, and other outbuildings, are intended to be in a distinct erection, connected with the rear of the house by a covered way, or disposed in such a manner as the nature of the situation rendered desirable.

The arrangement of the chamber floor affords four large sleeping-rooms above the apartments below, and two small ones; the latter contrived in front, at the end of the hall, and the other, by a continuation of the same partition across the end of the room, above the dining-room.

The sleeping-room for servants would be in the wing.

The height of the chambers in the main body of the building is eight feet in the clear, with a space in the roof for storage.



PL. LXII.-SQUARE COTTAGE-ELEVATION.

The view of the exterior shows that by simple grouping of the necessary details of the building, a liveliness of effect can be obtained which the square form of the place seldom permits. The common defect is in the persisting of country-builders in filling their houses with windows—to the destruction of all of what painters call breadth, and to the actual discomfort of the indwellers, who show their sense of the existence of the evil by invariably keeping the windows closed by blinds inside or out, but who rarely have the good sense to resist the temptation to make their house, when building, a perfect glass-case. In the plan under discussion the whole

effect would be destroyed by pairs of windows in each room, and it is strange how constantly, in house after house, this blunder is repeated. Dr. Dixon, the witty and observing editor of the *Scalpel*, lashes this absurdity, and dots down a great many common-sense arguments in favor of the one broad window in lieu of two, and the dismal pier between.

I believe, could the reason for this arrangement be traced to its foundation, it would be found that, because a cheap, tall, and showy mirror can more easily, and at less cost, be put between two front-windows than elsewhere in the room—so builders plan all their fronts. No place is so bad for the mirror, because it has no light thrown on it which it can reflect; and in its absence, nothing is so gloomy as to have one's view of a pleasant landscape or cheerful street without, cut in two by a solid pile of masonry or carpentry work. Contrast a parlor with a broad, single window at its end, with a central pier and a window on either side, and notice how lively and cheerful the former is, and what a saving there is, too, in cost of upholstery!

Still, fashion has its obstinate followers, and in the very plan before the reader, which has been built in the country, the owner insisted, "because he had a glass," in filling the front with pairs of windows, above and below, in each room.

The house is framed, filled in with back-plastering, and rests upon stone foundation-walls. The verandas, and other details, are in somewhat ornate style, and French in character, the rounded hood in the centre of the front being a common feature of the modern French country house.

The cornice is supported upon heavy cantilevers, and above the second-story window a canopy projects, finished with a cresting and drep fascia of simple design.

The pitch of the roof is sufficient to permit shingles to be used as its covering, the hood being covered with tin.

In the centre of the front is a recess six inches deep, by means of which the monotony of the exterior is broken.

The windows are broad, and divided by mullions into three compartments upon the lower floor, and into two above, and within are folding blinds.

The chimney-shafts are of brick, panelled, and their caps may be of the same material, or of stone.

Within, the cottage is finished plainly but neatly; there are ventilating flues constructed in connection with every fireplace, and an air register upon the walls; it has been twice erected at a cost in each instance of two thousand three hundred dollars, by contract, the situation being the vicinity of Hudson, in the State of New York. In the West the cost would be less; and in each case referred to the ceilings were corniced, the walls hard-finished, and centre-pieces attached to the ceilings of the principal rooms. The wing building was not included in the contract, but as

the cellar under the whole house was finished off, and a kitchen made beneath the dining-room—one expense may fairly be set against the other, and the provision of the wing appears in every respect the more desirable arrangement.

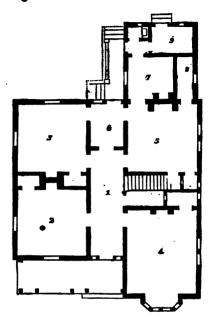
A building nearly square in plan, but with changed form in its elevation, is suited to many localities where the picturesqueness of the scenery would be marred by too rectangular an outline. Such an one will be found in the following design of a cottage in the Tudor period of the Gothic style, intended for the residence of a clergyman in Massachusetts, and which, though well calculated as an example of an inexpensive parsonage, is equally adapted as a dwelling for any other use.

The plan represents a square, with projecting portions front and rear, and is arranged in the following manner.

The front projection affords a convenient abutment for a veranda, which serves also as an entrance porch to the hall, No. 1, which is six feet wide, and from about the centre of which a staircase hall intersects one side at right angles.

The rooms are—in front, with a window opening upon the veranda, the study, No. 2, with ample wall space for books, and a closet by the side of the fireplace. This room is fifteen feet square.

In its rear is a dining-room of the same size, with a closet next the fireplace.



PL LXIII .- GOTHIC PARSONAGE-PLAN.

In front, partly projecting from the wall line of the rest of the building, is the drawing-room or parlor, No. 4, fifteen by eighteen, and with a pleasant embayed window upon one end, and a mullioned window at the side. Connected with this room is a large closet for the use of the lady of the house, and which, being lighted and ventilated by a window at one end, and provided with a sliding-door above a shelf at the end towards the hall, would be a convenient private china and store closet.

The staircase has under it an inclosed flight to the cellar, with a door opening into the kitchen, No. 5, a room fifteen feet square, with a large store closet, lighted by a similar window to that before described in the ladies' closet; No. 6 is a pantry connecting the kitchen with the dining-room; well lighted, fitted with drawers and shelves, and having a door towards the hall, and also a means of communication, by a covered way, with the outbuildings. No. 7 is a wash-room and scullery, and next to it a larder or milk-room, No. 8; these portions of the building are nine feet by ten, and three feet six inches by ten, respectively.

Beyond these are a necessary and wood-shed, No. 9, all within the rear building, and entered from the house, or by a covered terrace walk outside, the front of which would be screened by an ornamental lattice. This portion of the building is but one story in height.

The rooms upon this floor are eleven feet high in the clear, and the chambers above are seven feet upon the walls, and, following the slope of the rafters, are finished with flat ceilings at a height of ten feet.

The chamber floor follows the disposition of the rooms below, excepting that the partition above that of the entrance hall, between the study and the diningroom, is carried two feet further into the rooms, by which means two chambers are added to the plan, in front and rear, eight feet in width. There are thus six chambers with ample closet space.

The roofs being steep, there is considerable room for

storage in the space above the collar beam;—the chambers, having so large an area inclosed above them, are free from any of the objections sometimes made to the upper stories of cottages, in which the roof is so immediately upon the ceilings that the air within becomes insufferably hot.



PL LXIV.-GOTHIC PARSONAGE-EXTERNAL VIEW.

The view of the exterior shows a building in the Tudor Gothic style, and is finished in such a manner as to be adapted to any material that convenience may place at hand. The whole is simple and inexpensive in character, and has nothing sufficiently distinctive to require special description or remark. The building was designed as a parsonage house attached to an

Episcopal church in Massachusetts; and the contract for the whole, completed as it stands, with outbuildings, was twenty-seven hundred dollars. In this instance the material was frame, filled in, and the exterior smooth ceiled.

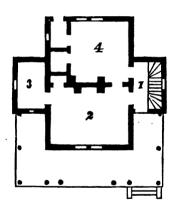
These several designs illustrate a class of house such as may be considered to require the maximum of outlay that a cottage for cheapness, not for fanciful purpose or pleasure, should permit. Next in degree come the homes of the young beginner in business life, or the thrifty mechanic who seeks to own his house instead of renting from a landlord.

These smaller cottages, though necessarily cheaply built, should not be devoid of tasteful appearance, such as would encourage that feeling of pride in home that has so much share in fostering the simple virtues that make after-life so happy. The neat cottage tempts the indwellers to a neatness in harmony, and leads them to adorn the little garden-plot, and cultivate flowers, and the children have at life's early steps a perceptive appreciation of beauty given, by their home associations, which never leaves them, even amid the distraction of business pursuits.

Amongst the prizes given at State Agricultural Fairs, a valuable one should be bestowed upon the possessor of the best cottage home—for no gift to the country is really more beneficial than that which tends, by its practical teachings, to elevate and refine the commonplace habits and wants of the working people. A well-

planned, tasteful, well-built and well-kept and cheap dwelling, is as great a boon to the community as a patent plough; and so I hope, should this page meet the eyes of those having authority, that this hint will be borne in mind for future guidance.

The following plan exhibits a cheap and tasteful dwelling of this class; comprising a good amount of internal accommodation, and having a picturesque appearance, obtained without recourse to elaborate ornament or costly mode of construction.



PL. LXV.-ENGLISH RUSTIC COTTAGE-PLAN.

This may be called an English rustic cottage, for its style is analogous with the rural buildings seen in many an English village, and its form of roof is peculiarly adapted to inexpensive construction and to framed timber, sucn as is generally employed in the country here.

The plan is a main building, with gable in front and rear, and upon either side a lower wing containing rooms, and forming appropriate terminations to the veranda which surrounds the front and a portion of the sides. This veranda is cheaply constructed, as the view of the exterior presently shows, and from it upon one side is the front doorway leading into the hall, No. 1. The size of the hall is seven feet by ten, and in it is a staircase to the upper floor, and below it steps to the cellar, which is made under the entire building.

From the hall a door leads into a pleasant sitting-room, No. 2, which is fifteen feet by twelve, and has connected with it a sleeping-room, No. 3, seven feet by ten, and a large closet by the side of the fireplace.

In the rear is a kitchen, No. 4; also serving as the family living-room, being provided with a large store closet and a sink room adjoining, in which should be a back door leading to the yard.

In the cellar would be further space for storage; and in the yard should be a building thirteen by ten, the posts seven feet high, with gabled roof, placed near to the corner of the sink-room, and containing a woodhouse and necessary. This might be built cheaply by nailing boarding on the inner side of rustic posts, such as are provided for the veranda, and then covering the boarding between each post with bark, the sill being

cut to a slope or having a board set slantwise thereon, and covered with bark to form a wash or base.

Upon the chamber floor are three rooms, corresponding with those below, and closets arranged to each, the partitions forming them being above those on the lower floor, with the addition of a closet attached to the smaller sleeping-room, taken out of the space devoted to those of the front and rear rooms.

The height of the lower story is eight feet six inches, and the posts are fifteen feet, making the chambers pleasant and airy; the flat ceiling being under the collar of the roof, at a height corresponding with the external framing, shown in the front-gable upon the view of the exterior.



PL LXVI.-ENGLISH RUSTIC COTTAGE-EXTERIOR.

The finish of the exterior is simple and bold, and is peculiarly adapted to the material that this country

places so cheaply and universally within reach. The walls, however, might be built of mortar, adobe, pisé, stone, gravel, brick, or, in fact, any substance that the locality, or the fancy of the occupant, might induce him to select.

The roofs project boldly from the gables, and to a somewhat less degree upon the eaves, and are supported by open framing in the large gables, and by simple extensions of the purlins upon those at the sides.

Brackets are shown to support the lowest springing of the roof, which may be considered an extension of the wall-plates, and are also placed under the collar-beam in the large gables, which projects two feet from the face of the walls, and above which are curved braces, taking the place of a king-post to the roof.

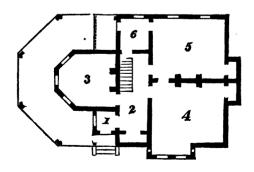
The verandas are formed by rustic posts, and by a cornice made of slabs, or rounded pieces of the same material, with the bark adhering; or the bark of the whole may be stripped off, and the wood oiled and varnished, as taste, and the species of timber placed at command, may determine.

The chimney-shafts are of brick, with lateral openings, and the caps are of cement, or brick laid on edge, and smoothly covered with cement mortar, the higher one at the end having a conical cap.

The walls are shown covered with clap-boarding over rough boards, filled in with brick, or common mortar, mixed with finely chopped hay; or, as before remarked, any other material may be used in their construction. The estimated cost of this cottage, in a neighborhood where material and labor were not above the average rates, is fourteen hundred dollars. In the last chapter of this book will be found remarks upon many items, connected with cheaply finishing a house, that will apply in this instance.

The next cottage, though somewhat larger in size and cost, is so contrived as to be susceptible of reduction from the plan, as now shown completed, by omitting a portion of the building at its first erection, reserving the perfect completion of the cottage until means permitted.

This mode of building, by which a perfect house is gradually completed, should be more commonly in favor, and as an example of the manner in which such a result may be obtained, the following plan is offered.



PL. LXVII .- SWISS COTTAGE-PLAN.

The plan of the building will require a careful examination, as there are peculiarities about it, but no difficulties, either in construction or arrangement.

In the first place the plan is to be looked at as if complete, if only consisting of those portions included in the space marked by the figures 2, 4, 5, and 6; those having the numerals 1 and 3, and the veranda inclosing them, being left for after-erection.

The plan thus consists merely of a block nearly square in the first place, the dimensions being twenty-two feet front by twenty-six feet in depth; but although this would comprise all that family-convenience in living would require, the building is not to be considered complete, until the remaining portion has been added, and the description, therefore, will be of the whole, perfected dwelling.

Upon the veranda is an entrance porch, No. 1, the inner door in which, is what would be the external door of the first completed portion of the building.

The entrance hall, No. 2, is six feet wide, contains a staircase to cellar and to upper floor, and has in front space taken out for a hall-closet, and for a closet to the family sitting-room, or dining-room.

Upon one side of the hall is a pretty parlor, No. 3, twelve by fifteen, with its end truncated, and a veranda surrounding it on all sides; this room is a portion of the added building. Upon the other side of the hall is the dining or family sitting-room, No. 4, about twelve feet by fourteen feet six inches, with the addition of a large

projecting bay in front, which contains windows, and is so arranged as to appear the centre of the façade in the external view.

Attached to this room is a projection at the side containing a store-closet, and in connection with it is one for the use of the kitchen, No. 5, which is also twelve feet by fourteen feet six inches. Next to the kitchen is a sink-room, No. 6, communicating with the yard, in which should be a similar outbuilding to that described as suitable for the cottage last sketched.

The rooms upon this floor are nine feet high in the clear; there is a cellar under the whole, seven feet high, and the chambers are seven feet to the underside of the plate, and follow the slope of the roof to a height of ten feet from the floor.

The plan of the upper story comprises three large sleeping-rooms, above the dining-room, parlor and kitchen, and two smaller ones, for a child and servant, at each end of the hall; there is also space in the centre of the high roof of the main building, for storage of boxes, &c.

The style of this cottage is what is commonly called Swiss, and has much that resembles the appearance of many of the modern cottages of that beautiful land. It is suited to erection in picturesque and boldly-featured scenery, and without presenting a fantastic appearance, or possessing useless or unmeaning ornamentation, would be a dwelling that would, in its external appearance, give pleasure to the passer-by, and afford, in its



PL LXVIII.-SWISS COTTAGE-EXTERIOR.

plan, convenient accommodation for all the requirements of family wants.

The remarks, as to material, made in the description of the last cottage, apply equally well to this; the verandas, however, and the finish of cornices, roofs and windows, being of a different character.

The roofs are curved, covered with shingles, and have their ridge line ornamented by a cresting, such as has been frequently described in foregoing pages.

The chimney-shafts are of brick, capped with slabs of thin stone, laid on to lap one over the other at the top, in the manner of a coping.

The overhanging roofs are supported by the timbers

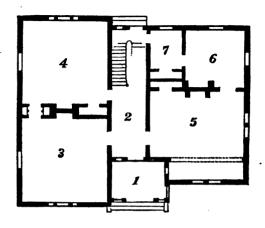
projecting beyond the plates, cased out with thin stuff, and upon the larger roof is a drop fascia of simple design of open work. The base of this building should be high and bold, and should have the effect shown by the illustration.

The cost of this cottage would be twelve hundred-dollars, if completed in the first instance only so far as the description explained; or sixteen hundred and fifty, finished to the whole extent represented by these plans.

Smaller houses, requiring a diminished expenditure, may yet be made pleasing in appearance and convenient in plan; and, as the illustrations that represent them would be, perhaps, too minute if drawn upon the same scale as the preceding examples, the remaining designs in this chapter are shown to a comparatively larger scale, that of one-sixteenth of an inch to one foot, or in other words, an inch upon a rule contains sixteen feet of the plan.

A convenient and inexpensive home will be found in the following illustrations of an Italian cottage, which is so arranged as to be suitable to almost any variety of situation or material.

The plan has in front a large porch, No. 1, partly recessed within the building, and the remainder extending beyond the wall. This porch is ten feet wide and six feet deep, and is intended, to a certain extent, to



PL LXIX.-ITALIAN COTTAGE-PLAN.

supply the want of a veranda and afford a pleasant place for enjoying the air and view out-doors. Within this is the hall, No. 2, six feet wide, and running to the rear of the building, with a door at its end, into the garden. In this is the staircase, and under its flight above are steps to the cellar, which would be under the whole building.

Upon one side of the hall is the parlor, No. 3, the size of which is fourteen feet square, and in the rear of this, connected by an entry between the two rooms, with drawers upon each side, is a bedroom, No. 4, of the same size, and in it a closet upon the other side of the chimney-breast, corresponding with the entry. Should the family not need this room as a sleeping-chamber, it could be used as a family sitting-room, or a

study, the latter purpose being suitable, should the plan be adopted by a professional or literary man.

The other portion of the house contains a large family living-room, No. 5, which, with the exception of the corner, taken out by the recess shown upon the plan, is sixteen feet square. In this is a fireplace and closet, and adjoining it are a summer-kitchen, or sink-room, No. 6, and a pantry, No. 7. In the latter is a closet, and a door opens from the room into the rear-hall, and thence to the yard.

I would remark that, as this plan has many features that appear to me commendable, and has been frequently erected, the illustrations, as before remarked, are made to a larger scale than those that have hitherto appeared—being one sixteenth of an inch to the foot. It is necessary to call attention to this, as a first glance at its relative size would deceive, the larger scale having been adopted in order to give a better idea of the character of the external finish.

The height of this story is nine feet six inches in the clear. The floor above is divided in a similar manner to the one that has been described, excepting that the partition above that between the hall and family living-room, No. 5, is moved further in the room, and is upon the same line as the wall of the recess. By this means a pleasant sleeping-room for a child is added to the plan, and the chamber by its side still remains a large apartment. The space above 7, is appropriated to closets for stores and for linen, and an open area for

boxes; over 6 is a servants'-room, and the remainder of the house has three large sleeping-rooms, above 3, 4, and 5. The height of this story is eight feet in the clear, with straight ceilings, or with the plastering following a short distance up the slope of the rafters, or not, as wished. The rise of the roof affords an open space for boxes, &c., and should have access by a scuttle and step-ladder from the staircase-hall.

The building may be constructed of frame or brick, as the neighborhood places most economically at disposal, and the finish within should be inexpensive. No cornices upon the lower floor, and the walls prepared for papering.



PL. LXX.-ITALIAN COTTAGE-ELEVATION.

The external dimensions of the building may be

judged from the plan; and in examining the illustration of the exterior, let the reader remark, that the plan shows the building to a larger scale, in proportion, than preceding designs.

The finish of the exterior is in the simple and somewhat elegant character of Italian design. The porch is of wood, and the details of its construction are contrived to show congruity with that material—all unnecessary casing out and false pretence being avoided.

A bold effect is produced by the recessed portion of the plan, which upon the second story is so contrived as to make a very pleasant balcony and out-door sittingplace, entered either from the small room over the hall, or by a window in the chamber upon the side. The cornice of the roof is carried in an unbroken line beyond this recess, and the deep projection is finished by a flat arch, and fringe-like drop-ornament below it.

The roof-cornice, brackets, window-casings, and other features of architectural detail, can be understood by the illustration, and it will be seen that, although carefully designed, the ornamentation is inexpensive, and the construction presents no difficulties.

In erecting this cottage, should circumstances lead to the employment of framed timber as the material, the outside-finish should be smooth ceiling, or if that proved costly, perpendicular plank with battens—the latter rather broader than usual, projecting but little and rounded on each outer edge, would be more suitable than clap-boarding. ١

The roof is represented as covered with boarding, over which roofing-paper, cloth, or tin, is laid with raised rolls, at regular intervals nailed upon the boarding, and covered with the material employed.

The chimney-shafts and caps are of bricks, panelled at the side and ornamented by dentils of the same material. The cost of this little cottage will be from thirteen to fourteen hundred dollars. The plan is varied somewhat from one shown in page 161 of *Rural Homes*, which was erected in Connecticut, five years ago, for eleven hundred dollars.

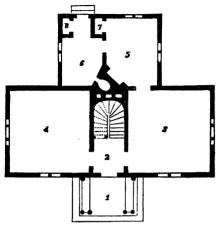
A cottage shaped in such a manner as to be susceptible of enlargement by the continuation of a lower portion to the height of the main roof, is a desideratum. The following design, prepared as a plan for a simple inexpensive parsonage, and equally adapted as a dwelling for any other use, has been published in the pages of a volume entitled, "A Book of Plans for Churches and Parsonages, published under the direction of the Central Committee, appointed by the General Congregational Convention. New York: Daniel Burgess and Company." The destructive fire in Spruce street, New York, in the spring of 1854, destroyed the original of this present work, which was then ready for the press; previously, however, the following design

had been printed for the use of the book in question, and is now inserted in the volume for which it was originally prepared.

Many young congregations—almost missionary settlements—require a building to be erected as a house for their pastor nearly as soon as they need the church. The difficulty usually is to combine a plan suitable to the modest wants and means of the minister, capable of enlargement as occasion may demand; and yet in style and character suggestive of its appointed use. There is a beauty in the fitness of church and parsonage that all must admit; and it is desirable, that in every case where a country church is built, a house for the pastor should be provided, so that in heart, as in teaching, he may be at home amongst his flock.

The following design, suitable for the parsonage of a simple rural church-society, is no less adapted as a cottage for a family, and is arranged thus:

The ground plan represents a cross-formed building, divided into apartments as follows: No. 1, is a rustic porch, formed by the overhanging projection, containing a room on the second-floor, surmounted by a gable, as will be seen upon reference to the elevation. This porch is thirteen feet on the front and seven feet deep, making a pleasant and cheerful out-door sitting-place, if desired. Its supports—between which, upon the sides, are seats—are simply the rustic stems of trees, of forms chosen for the purpose, the bark—being retained



PL LXXI.-RUSTIC PARSONAGE OR COTTAGE-PLAN.

thereon by copper nails, and decay prevented by a coat or two of oil and varnish.

The entrance door leads from this porch into a hall, No. 2, in which are stairs above and below, to cellar and chambers.

On the one side is a living-room, No. 3, fifteen feet square, and upon the other, No. 4, a library or bedroom of the same dimensions.

No. 5, is the kitchen, thirteen feet by eleven, communicating with the dining-room, and having attached to it a good sized scullery and sink-room, No. 6, in which is a safe for food, No. 8, and from the kitchen is a store-closet, No. 7. There is also a back entrance, as exhibited upon the plan. If wished, No. 6 could be used as a kitchen, No. 4 the dining-room, 5 a sleeping-

room and No. 3 the library or study. This destination of the rooms would, however, be made dependent upon the mode of life of the occupants, and upon the use of the cottage either as a parsonage or ordinary dwelling. The height of this story is nine feet in the clear for the portion comprised in the spaces 1, 2, 3 and 4, and eight feet for the rear wing.

The sleeping accommodation provides two large rooms above 3 and 4, and one of good size above the porch; and if the rear wing was carried up the height sufficient for such a purpose, upon the first erection of the cottage, two additional rooms would be gained on this floor.

A peculiarity in this plan is the gathering of the



PL. LXXII.-ELEVATION.

flues into one shaft, affording an opportunity for using a stove or fireplace in every room, and of providing, in connection therewith, a most economical and readily-available means of ventilation; there is, also, a large brick oven in the rear of the kitchen fireplace, and space for a boiler, if wished.

The external appearance of the building presents a simple rustic character, attained at small cost. Any material may be employed that location renders most desirable; and without any change in the plan, stone, brick, concrete, frame, or log, may be used without difficulty.

The cost of erection, omitting, in the first instance, the extension of the rear wing into the second-story, would be, in western New York, six to seven hundred dollars, increased, perhaps, to eight hundred, fully completed upon the chamber floor.

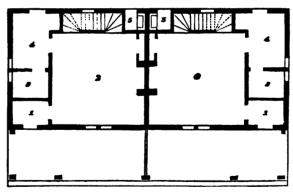
This little cottage is simple, honest and cheap, and as a parsonage or family home, has many peculiarities of comfort and convenience to recommend its erection.

In the last chapter of this volume will be found described various economical modes of constructing cheap dwellings which have stood the test of experience; and without offering, therefore, general remarks in connection with each plan, I refer the reader to its

perusal, and proceed to offer other examples of cottages upon a scale of cost and accommodation even less than what have been comprised in the foregoing pages.

A small home for the laboring man in the country, or the mechanic in the suburb of a city, is much needed. Frequently the inducements of some saving in cost are sufficient to cause the erection of double cottages, each one entirely distinct, but causing a diminished outlay than would be required for the construction of two separate dwellings.

Small houses so contrived are in increasing demand. The following design illustrates a convenient plan by which two separate dwellings are comprised under one roof.



PL LXXIII.-DOUBLE COTTAGE-PLAN OF FIRST FLOOR.

The plan represents a parallelogram consisting of a double square, each half of which is twenty-two feet,

forming in all a building forty-four feet by twenty-two, inside dimensions in the clear. The chimney for each half is in the party-wall between, and the entrances are at the furthest corner of each front.

A veranda extends entirely across the front of the building, and in the middle thereof is a lattice or closed screen separating one portion from the other; a similar partition extending across the courtyard to the outer fence, both back and rear, though, of course, not necessarily as high.

Each dwelling is arranged as follows.

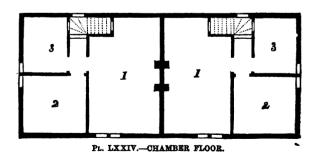
On the outer corner is an entry, No. 1, containing the front door, and fitted with hooks and other conveniences for out-door garments; in this is space for a wash-stand for use of the men of the family, when returning home for their meals.

No. 2 is a large family living-room, sixteen feet square, having a fireplace and by its side a closet for earthenware. From this room an inclosed flight of stairs leads to the cellar and to the rooms upon the floor above.

By the side of the kitchen is a large inner closet, No. 3, lighted by a window at the side, and opening from a sink-room and scullery, No. 4, which contains an outer door, and in the recess by it a sink. Under the staircase-window is a covered shoot to the cellar. Entered from outside the building is a necessary, No. 5, so arranged as to come next that of the other dwelling, and thus constructed over but one vault. The walls

surrounding this are of brick, cemented; and although under the same roof as the rest of the house, the position of this appendage is in no way a source of discomfort. From it, just below the seat, a flue is formed in the party-wall, discharging into the smokeflues from the fireplace in the living room, by which means all impure air is drawn off and discharged above the building. If wished, the partition wall, between 3 and 4, could be extended further into the latter, and the increased space thus given to the former, would make it sufficient for a sleeping-room for a man or boy.

These plans are drawn, as before remarked, to an enlarged scale. The height of this story, in the clear, is eight feet six inches, and the walls are thirteen feet from the underpinning to the underside of the plate, by which the chambers are made airy, and each room of proper height upon the walls.



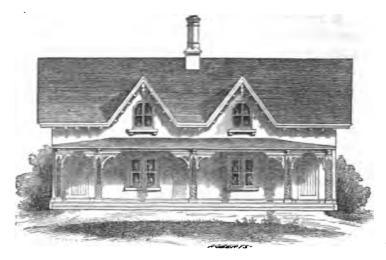
The space upon the second floor is used in the most economical manner, as the plan testifies.

The staircase leads to a small hall, from which doors conduct to a large chamber, No. 1, in one end of which is a recess for the bed, leaving space in the remainder of the chamber for a second bed, if the number in the family required. No. 2, is a second chamber, and No. 3, adjoining it, is of diminished size. Above the doors of each room, are apertures for circulation of air, and in the skirting-board of each, opening on the well of the staircase, or the upper hall, are left registers for admission of a current of air above the floor. A large window is provided upon the stairs, which should drop at the top as well as bottom sash, and, when open, would from its position fully ventilate the air in the upper floor of the building; inner windows also are provided in rooms 1 and 3, opening to the well of the stairway.

Space would not permit the provision of closets, which, unless properly aired and attended to, are nests for vermin in such small dwellings. If needed, however, the recess, at the end of room No. 1, could be inclosed so as to form a large store closet, and having a swing-window inserted therein towards the well of the stairs, could easily be kept sweet. These simple provisions for securing a circulation of air in the sleeping-rooms, would render them healthful and pleasant, and should, on no account, be lost sight of in the erection of the building.

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The outside finish of this cottage is so simple as to render remark unnecessary. The walls, being unbroken



PL LXXV.-DOUBLE COTTAGE-EXTERNAL VIEW.

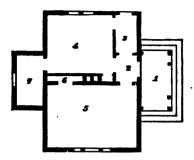
by any projections, can be constructed of concrete, or adobe, or any other material that local circumstances render most economical and desirable. The chimney-shafts are of brick, built so that the flues are set diagonally to the base, by which means increased beauty of effect is gained, and the current of air around them is broken.

The veranda is cheaply formed, and the roofs are finished merely by the extension of the timbers beyond the outer face of the walls.

The cost of this double-dwelling would not exceed one thousand dollars, and under favorable circumstances could be erected for less.

A smaller cottage, with its rooms upon one floor, is also frequently erected, and although necessarily built in the cheapest possible manner, need not be unsightly in appearance. The log-cabin, and the plank-frame of the West, may be built in a picturesque and pleasing manner, and at no sacrifice of internal comfort, or increase in cost. The material selected, should be used in such a manner as to readily permit extension by raising the roof at some after-period, and adding a second story. A frame-house, constructed in the usual manner, with corner-posts, does not so readily permit this, as other modes of construction, and therefore is not recommended for the plan that follows, which is designed to be built of mortar or concrete laid between framing-beams of natural timber, and put together in the manner that the external view of the building represents. When a second story is added, the roof is raised, but its whole framing is allowed to remain, and above it, and parallel to its slope, upright posts are notched thereon supporting the rafters, and giving the additional height required; the spaces, of course, filled in the same manner as had been previously employed in the lower story. The plan, however, is not solely adapted to such a mode of construction, but would permit the walls to be built in any usual manner.

The plan is a parallelogram, fifteen by twenty-four within the walls, and on either side is a wing, not, however, intended to be carried above this floor, should the occupants at any future time determine to extend their



PL LXXVL-SINGLE COTTAGE-PLAN.

accommodation by adding a floor above the main building.

Upon the side is a large open porch, or stoop, No. 1, seven feet deep by eleven feet frontage, protected by a shelving roof, which overhangs the front and sides.

From this a door opens into an entry, No. 2, which gives access to the various portions of the cottage.

Of these, No. 3, is a sink-room, with an outer door to the yard. No. 4 is the living-room, with a closet by the side of the flues, provided for the cooking-stove, &c. The dimensions of this room are eleven by ten, and in the sink-room should be a safe for food.

In front is a large room, No. 5, fifteen by ten, intended as a sleeping-room, and provided with a large closet, No. 6.

At the side is a smaller sleeping-room, No. 7, the dimensions of which are seven feet by twelve, and is made to connect with the living-room. This room

is intended as a separate sleeping-room for such occupancy as the family may require.

The height of this floor is nine feet in the clear, the plates resting on the walls at a height of eight feet above the floor-timbers, the additional height, which may even be increased, being made by furring down the ceiling under the collar of the roof frame.



PL. LXXVII.-EXTERIOR.

The illustration of the exterior shows the manner in which the walls may be finished, in case they are constructed of concrete or gravel mortar filled in between rough timbers, laid in a peculiar form. Buildings so constructed have existed for centuries, in various parts of Europe, and might advantageously be erected here. The roofs are shown to project very

boldly; and below, the plates are slightly curved outwards, in the manner that has been described in previous chapters. The building is raised two feet six inches above the surface of the ground, and the walls and floor-timbers are supported upon an underpinning of stone, roughly laid in cement mortar, or of brick, as locality affords at the least comparative cost. A cellar is not included in the estimate, under the whole building, but should be provided, if the nature of the soil permitted. The roofs may be shingled or covered with boards lapped one over the other, or by any mode or material.

The cost of this cottage in the country, under favoring circumstances, would not exceed four hundred and fifty dollars. Built, however, in the neighborhood of cities, or as an adjunct to a country-house, the expense would depend upon the frugality exercised in selection of every item. A man of tolerable skill, with a little assistance from a country carpenter, could erect such a cottage for his own dwelling at but little outlay, and could provide himself with a cheap and tasteful house at half the cost a gentleman would have to pay if he caused it to be constructed by a carpenter and mason, employed in the usual manner.

All who build such small and inexpensive homes should first be careful in the proper selection of a site.

The dryness of the soil, available drainage, and cost of preparing foundation walls, all should be perfectly made sure of before commencing; and if the homeseeker have a choice of situations that will permit him to balance different advantages, let him choose one where the exposure is sunny and the pleasant prospect towards the south-let him not fear the sun's rays, for the windows are more easily screened than cold, damp atmosphere got rid of. Beside, in this connection, it has been remarked that a breeze is more frequent during the day on the south side of the building, than upon any other exposure; and the sun's rays are not at so low an angle, and, therefore, do not so penetrate the openings of the building, as from the west or east. As to trees and local beauties of scenery, that he, perhaps, will not be able to dispose as he will; but if nature has been bountiful towards him, he should be especially careful to build an object that shall agree with the beauties of the landscape, and, however simple and unpretending, not be out of keeping.

A true taste may be as fully displayed in a five hundred dollar cottage as in a fifty thousand dollar mansion, and by use of the same means.

The home charm that invests a well and simply-contrived cottage, is gained as much by nature as by art; the building itself may be of the most frugal possible construction, and entirely devoid of ornament, and yet, by proper treatment, be a beautiful object, and a source of pleasure to the inmates as well as to the passer-by.

General rules by which this may be done, can hardly be laid down, and it must be left to the efforts of the in-dweller, after the builder has done his part, to render the cottage as lovely as its nature will permit. The garden, and such simple floriculture as the leisure hours of the inmates can permit, will contribute greatly to this beauty of general effect; much may depend upon the nature of the outer fences and gates, and much upon the manner in which the surrounding land is kept; but at little cost any one of the homes offered in this section may be made pleasant and beautiful abodes, and ornaments to any scenery, however lovely, in which they may be placed.

In the concluding chapter many general matters, applying more or less to all the preceding designs, should be read by the home-seeker, who contemplates a cheap cottage; and before terminating this portion of the volume, a few words are offered to plead for an increased attention to the desirableness of wedding beauty with usefulness in country-homes.

It is pleasant to know that the efforts of the lovers of art in this country are yielding fruit. Already this fair land has been, within the last three years, plentifully dotted with tasteful dwellings, in a progressive numerical increase, far beyond that of preceding times, and the people, having awakened to the perception of this, are only in danger of being led astray by the desire to too quickly effect embellishment; for in this fast age, if it become the rage to "beautify," right or wrong,

"beautiful" must every country-dwelling be. Hence the myriad buildings, adorned with costly gingerbread, scattered over the land, and opposing an amusing contrast to the quiet but elegant structures, that those of better taste erect. Know what to do, then do it, is a trite old maxim, that may well be borne in mind; but the trouble is that, as a mass, the people do not (in home-adorning) know what to do, and rather than do nothing, they rush blindly on, and take the chance of the result coming out right. There are not models enough in the country as yet for the people to copy; and not sufficient knowledge as yet of the principles of beauty in art, to enable them to originate, and so it is no wonder that they go, or are led, astray, in the endeavor to make their homes beautiful.

The first want, is of early art-teaching.

School-day memories should be of beauty; early associations and truthful impressions of simple, natural taste; and more time bestowed upon the cultivation of the perceptions.

After-days permit but little storing of the lessons that childhood's teachings would have rendered instructive. That quiet sympathy with beauty, that gives so delicate a coloring to the thoughts of mature life, and leads so unerringly to the selection of every artistic embodiment, can be but seldom gained, by even the most diligent endeavor, after the heart has become worn by the business-experiences of the struggling life of a prosperous merchant, or professional man. Although the

judgment may mature, the lamp of taste is lighted at the mother's knee, and if unlit then, the light of afteryears will but dimly supply its place.

Architectural beauty, however, being dependent upon laws that are known, will be better understood and appreciated, as a knowledge of the principles of the art increases. The architect's labors will be better valued and his guidance more frequently sought. Even now a great improvement is manifest, and the prospect in the future is more bright.

The shadow is lifting from the landscape—the beauties it concealed are becoming evident beneath the stealing light. Every-day cares forbid not sympathy with outer beauties, for the chill upon Dickens' Student in the Christmas Carol, is a fearful pall, in which to envelop the soul, and remain secluded and impervious to aught but business-thoughts, and matter-of-fact conceptions! The prayer of the age should be, with the Student in the tale—"Reput mit Memory green;" and Childhood's memories be retained through life, to countervail the influence of the cares that would steadily deny the working of fancy, or forbid the appreciative enjoyment of things beautiful!

PART THE FOURTH.

THE HOUSE ON A FARM.

CHAPTER VIII.

THE HOUSE ON A FARM.

ALTERATION OF OLD BUILDINGS.

A FARM-HOUSE properly means something more than the mere dwelling of a farmer. All the buildings belonging to it, connect themselves so inseparably with the plan, that the residence for the family is the portion of the very least importance thereof. Considered in this sense I do not propose to treat upon the farm-house, for its importance demands a separate and comprehensive volume; but to truly carry out the intention of this present work, the following chapter now before the reader will be devoted to the description of the House on a Farm, not dwelling upon the outbuildings required for farm use, other than in a general manner; and leaving, perhaps, to some future work the details of the out-door belongings connected with farm-working.

The house upon a farm, varies from the country-

home in general demand, in some important particulars. These are, however, rather of arrangement than consisting of any difference in abstract principles of design. The farmer may have tastes that in his leisure hours find fit embodiment in the large library or other feature of the country residence, and his family may blend with honest and faithful fulfillment of all the duties of farm-life, a social elegance that fitly finds place in the drawing-room of the well-appointed villa. Yet neither the country private dwelling, nor yet the villa. would be suitable to farmer's use; and so a building is required peculiar in its arrangements, yet having certain absolute necessities to be provided for, that render one plan, that shall be well-contrived, an example for almost every farm-house throughout the land, modified only in extent and scale of accommodation by individual circumstances.

The particular shape that the farm buildings properly belonging to the house may be thrown into, will depend mainly upon the site and upon the nature and extent of the farm. The species of crops raised, and the question as to whether the land is arable or better fitted to grazing purposes, will influence to a very great extent the plan of the out-buildings—even to a small degree, the farm-dwelling itself.

The last few years have witnessed a great improvement in the ideas of farmers as to the finish and appearance of their buildings, and many writers have done yeoman service in calling attention to the benefit

derived from having a well-studied plan before erecting even the simplest dwelling. And yet very few published plans that I have seen exactly meet the want that they have sought to supply. When presenting internal arrangements suited to a farmer's use, the exterior has been either painfully bald, or else its honest simplicity spoiled by cheap and unmeaning filagree work stuck about the building, and entitling it to the cognomen of a "Gothic or Swiss farm-house," as the artist chooses to call it. Why cannot a building be made distinctive in its general character, and all such frippery be discarded? The old farm-houses of England, of the French provinces, and of the Netherlands, are many of them perfect studies for the painter, and complete embodiments of internal usefulness and comfort. It is true much of their effect is due to the heavy, solid material in which they are built, the common mode of erection in this country forbidding those deep recesses and massive buttresses which give so much relief to the walls of older buildings.

With wood as the material to be employed, the farmer should leave to the proper proportions and outlines of his building, the chance of producing a pleasing effect. If the simple structure is pleasant to the eye, the overhanging roofs, porch, substantial chimney-stack, and wide spread upon the ground—all make up a general mass that has an honest simplicity; he needs no inch-board finery—and may trust the building to tell its own tale; but if the edifice, in

its unadorned outlines, is ungainly, all the added ornamentation in the world will not render it pleasing. The general laws of proportion and the principles that should determine the composition of all other buildings apply equally to the farm-house. It should express a substantial and enduring sentiment; nor need it be bare of ornament, for the grand beauty of general form once gained, every inch of adorned construction that the owner can afford will tell with marked effect.

In this country a new farm-house, upon a large scale, is not often demanded. A successful, well-cultivated farm is of slow growth, and with a thrifty farmer the homestead is the matter of least present importance. First the barn, then the house, is the old Dutch maxim; and it is beginning at the right end. The stock and the crops are the capital of the farmer, and must be cared for first; he and his family can rough it awhile, but the produce and the cattle must be housed and well cared for, and soon the result shows that he can safely bestow upon himself and family the care that prudence rendered necessary upon his belongings.

For this reason most of our large farm-houses are either of very recent erection, or additions made from time to time to the first small dwelling, that the family reared upon the land. But occasionally a new place is purchased, and a substantial dwelling, with its requisite outbuildings, is erected at once; or the old place is left standing, but disposed to other purposes than its original use intended, and a new and more

commodious house is built, perhaps, elsewhere on the farm.

A well-cultivated farm, that has been tended for years, with fine old trees about the homestead, and thrifty orchards at hand, possesses so many charms, that the owner is generally unwilling to change the original building-site, and hence is often induced to alter and add to the old homestead. This is of such common occurrence, that I have determined in this chapter to devote the greater space to descriptions of various plans adapted to this purpose, offering but one design for a dwelling on a farm, new and complete, from its first erection.

In erecting a farm-house, the first consideration should be the proper selection of the site. It should be central to the land, and yet not too far removed from the road. It should be sheltered, and so placed as to permit the farm-yards to be screened from cold winds, and all that may be going on within them readily noticed from the windows of those rooms most commonly in use, and yet not brought obtrusively before the eye of the passer-by, or too much exposed to view from the pleasure-side of the building.

Above all, it should lie so as readily to be drained, and upon land the natural slope of which permits all moisture from the yards to be turned from the house, and the house itself to be elevated without being exposed to cold winds. Trees should protect the dwelling, and the cold sides of the inclosing yard, and water should

be abundantly provided, but so arranged as never to become stagnant, and thus destructive of health. A thorough drainage is indispensable. And a good, dry cellar, under the whole house, should be insisted upon, with air-openings upon all sides, and a large flue built beside the kitchen-chimney, opening to the ceiling of the cellar, and affording a certain means of ventilation in all states of the atmosphere.

These considerations for health and comfort; the following for neatness and pleasant appearance.

A cheerful porch, or stoop, or an unpretending veranda, adorned by climbing roses and honeysuckles rather than by the carpenter, in front, or at the side which contains what may be called the leisure-rooms of the family, such as the parlor and private hall; with an entrance to the business portions of the dwelling entirely distinct, and a still more private outlet from kitchen and elsewhere, for use of the family in obtaining access to the dairy-room, wood-house, and other outdooradjuncts the house. Connected with the house should be, what may be called the home-yard, distinct from the farm-yard proper; inclosed by appropriate outbuildings, arranged so as to form perhaps a hollow square, or such other shape as the locality rendered most suitable, and beyond this, connected with it, or not, as circumstances led to prefer, should be the barns and larger outbuildings, needed for farming-operations.

The fault of many existing farm-houses is, that the buildings are too long and straggling; the rooms

frequently with many outer doors; rendering the house very cold in winter-time, and difficult to be kept clean in summer.

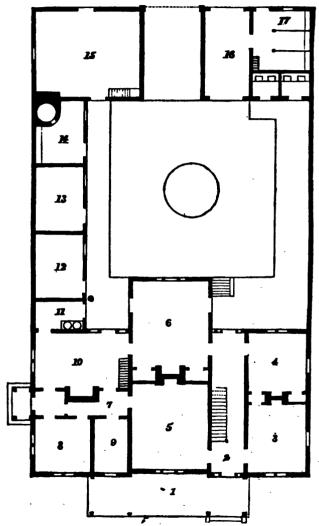
An old way to plan the farm-house was to shape it somewhat like the letter H; the cross-bar in the centre representing the dwelling-proper, with a court-yard inclosed nearly upon three sides, in front by outbuildings, and with a similar yard in the rear. Thus every portion was under the eye of the inmates, and the buildings all brought into one common focus.

Unless of very large size, however, the house itself was thus rendered somewhat gloomy; but as English habits seemed to prefer seclusion and privacy, the objection was not probably felt as such by the inmates.

Without extending these general remarks further, it may suffice to say, a house on a farm should be considered, as it were, a place of business, and every provision made to fitly carry its business on. These properly provided, the portions of the dwelling, such as all homes possess in common, would not greatly differ from foregoing plans, and would be subject to the same influences of circumstances, or individual preferences and habits.

The plan chosen to illustrate a house upon a farm, represents a building of moderate extent, forming the front of an inclosed area, of which the prolonged sides and rear are occupied by the buildings attached to the dwelling.

The scale, to which these and the remaining plans in



PL LXXVIIL-HOUSE ON A FARM WITH HOME YARD-PLAN.

this chapter are made, is one inch to twenty feet, and the building proper is fifty-eight feet frontage, and the whole inclosure one hundred feet in depth, exclusive of the space covered by the veranda in front.

The dwelling is arranged as follows: in the centre of the front is a wide veranda, No. 1, extending thirty-four feet across, and projecting ten feet. From this an outer doors opens into an entrance hall, No. 2, running to the rear of the house and containing an inclosed staircase to cellar and upper floor.

Upon one side is a private parlor, No. 3, twelve feet six inches by fourteen, and in the rear is a sleeping-room, No. 4, of the same dimensions, with closets between.

These rooms, with the hall and staircase, constitute the strictly private portion of the dwelling for the leisure use of the family.

Connecting these with the rest of the house is a large general sitting-room, No. 5, sixteen by twenty, and in its rear a best kitchen or dining-room, No. 6, of the same dimensions. The ample fireplace has closets on either side, and this room has outer doors leading upon one side to a covered stoop, in which may be the well, and upon the other to a covered porch from which a trellis path conducts to outbuildings placed at the the further end of inclosure.

Upon the other side of the dwelling is an entry, No. 7, from which a passage conducts to a side porch, which may be considered the business entrance to the home,

as that in front is made the private door for the family.

Upon one side of the passage is a business room, No. 8, for the use of the farmer, and next to it is a large store-room, No. 9. Upon the other side is a second kitchen or work-room, No. 10, of ample size with oven and fireplace, and in it a back stairway to the cellar and upper floor.

Of the outbuildings at the side, No. 11, is a wash or sink-room, so placed as to permit its use by the men when coming from their work at meal-times, before entering the house.

Next to this is, No. 12, a milk-room, properly fitted with shelves and floored with cement or brick.

Beyond is a fruit-room, No. 13, made in the same manner as an ice-house would be built, and rendered perfectly dry and well ventilated.

No. 14 is a feed-house, with boiler for preparation of food, the flue of which has connected with it an air-duct leading from the fruit-room, by which impure air could be drawn off and discharged into the open air.

These outbuildings are all lighted upon the inner side, and have the roof projecting beyond the eaves in such a manner as to protect a walk extending along them, which leads to the wood-house, No. 15.

The dimensions of each of these outbuildings are twelve by fifteen, and the wood-house is twenty-two by twenty, with a stairway to the smoke-house above.

Between the latter and the building, on the corres-

ponding side, is an open passage-way, with a light pair of double gates on the outer side, sufficiently wide to admit a team to pass in case of need.

Next to this is a private wagon-house, No. 16, for the pleasure wagon used by the family, with double doors at each end, and next to it is a three-stalled stable, No. 17, for the same purpose.

A covered trellis walk leads from the house to this out-building, and in it are necessaries divided into two apartments.

In the yard is an open space that should be smoothly gravelled, so that a vehicle could, if wished, be driven around it, and in the centre might be a small grass-plot, or better still, a bed filled with fragrant flowers, and protected by a neat wire trellis about eighteen inches in height.

The side outbuildings are eight feet high upon the inner posts, and twelve feet outside, so as to slope the roof inwards and allow the water to be collected in large tanks or cisterns in the yard.

The wood-house, stable and wagon-house are carried higher, so as to form lofts above the latter for hay and feed necessary for the stable attached to the home-yard, and above the wood-house is a smoke-room for hams, &c., through which the flue from the boiler below is made to pass.

Beyond that the farm-yard may be arranged in such a manner as the nature of the farm and the peculiarities of the situation suggest. A cellar extends under the whole of the dwelling-house, and in addition to the stairways provided within the building, a wide flight of steps descends from the covered platform upon one side of the kitchen, and is made so that barrels and other articles of bulk can easily be taken in or out.

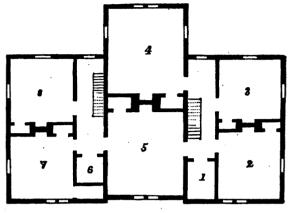
Below each fireplace is an ash-bin, and a large receptacle for deposit of this valuable refuse of combustion is made under the chamber upon the principal floor, the position of which would render it easy of access from the inner yard without.

The rest of the space in the cellar should be devoted to purposes of storage, and the remark not forgotten which applies to its proper ventilation. Flues for this purpose should be built in connection with each fire-place, and openings be left in the ceiling of the cellar discharging therein.

The first floor of the dwelling is ten feet six inches high in the clear, and the floor above is seven feet to the plate, with the ceiling overhead at a height of ten feet on its flat surface, and extending upon the underside of the rafters a short distance above the walls.

The rooms upon the upper floor are arranged as follows:

The staircase leading from the private hall ascends into an upper entry lighted by a window in the rear, and having at its front end a large linen closet, No. 1, which is lighted by a heavy glass inserted in the roof, the sides of the gable of which come down immediately



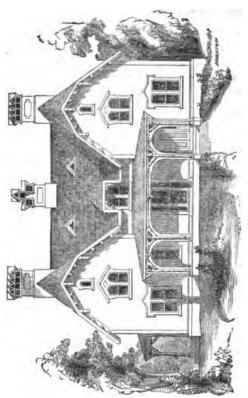
PL. LXXIX .- CHAMBER FLOOR.

over this portion of the building. Nos. 2 and 3 are large chambers the size of the rooms below, and upon the other side of the hall are sleeping-rooms, 4 and 5. All these rooms are of large size and attached to each is a closet.

These rooms constitute what may be considered the family or private portion of the dwelling upon this floor, and beyond them is a hall with back staircase, arranged in a manner similar to that upon the other side, and provided with a large closet, No. 6, a portion of the space of which is made a large additional closet attached to the sleeping-room, No. 7.

In the rear of this is, No. 8, a spacious chamber, and provided with closet.

These rooms would be for the hired female help



Pr. LXXX. - ELEVATION.

employed within the house; and in the space above, left by the rise of the roof, is ample room for comfortable sleeping-chambers for the men, with a stairway, connected therewith, above the back staircase in this portion of the plan.

The attic is lighted by small windows in the gable, and by dormers in the roof.

The appearance of the external finish of this farmhouse is different to that of any design previously offered.

The sharp line of the apex of the gables is taken off by a truncated form, that is given to them, which in construction has a peculiarly pleasing and rustic effect, and when seen in connection with the sides, this mode of terminating the roofs is well adapted to carry out the general idea sought to be conveyed by the design of the exterior.

The veranda is massive and simple, the posts being of natural timber, placed upon an inner frame, and the roof laid at a steeper pitch than is usually given to such features.

The window-casings, although easily made and simple in form, possess a distinctive character, and the chimneyshafts are as honestly ornamented as country workmanship and homely materials allow.

The roof-finish is very matter of fact, simply a roll moulding, and fascia covering the boarding and supported upon brackets, between which are the ends of the timbers. 1 1

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ALTERATION OF OLD BUILDINGS.

o old bottles, is not very prudent, and exito a worn-out frame may be considerable; but when the walls are worth it, are space for the internal arrangement of the internal arrangement can often be obtained by the alteration to rebuilding.

farm-houses of Europe were seldom ere mo, and the frequent cause of their pictures beauty may be traced to the effect of and off-shoots made time to time by difference.

without, by additions in height, or by attack
dings, in any manner that may be wished.

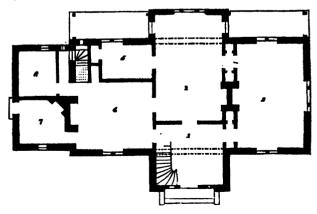
opon a farm, bordering on the Hudson, in a fert Dutchess County, New York. The walls of great age, and the general outline of the scope for nearly all the internal sub-division is family would require.

the walls being low, and the rooms above but the walls being low, and the rooms above but the walls being low, and the rooms above but to elevate the rooms below, and give please above, and therefore a lighter material the desirable for the upper story.

In two places, in front and rear, the walls are defective, and require rebuilding; as these spots are in the centre of each wall, advantage is taken of this necessity to add a projection upon each side, and by such means increase the internal accommodation.

The original structure, having been built of stone, bund upon the spot, there is no difficulty in matching the material in the masonry of the added portions, and the height of the stone walls remains undisturbed.

The following plan of the lower floor shows the building as remodelled, and comprises all the conveniences that a farm-dwelling of the same extent should possess. It may therefore serve equally well as an example of a new house, with some changes in its mode of construction, that the reader would necessarily understand to have been caused by the endeavor to adapt the new work to the old.



PL LXXXI.-STONE FARM-HOUSE REMODELLED-PLAN.

The house, as originally standing, was comprised within the parallelogram indicated by the dotted lines across the projection in front and rear, and consisted of a room into which the outer door immediately opened; one side of which was an apartment occupying the entire space, and in the thickness of the chimney-shaft, a steep stairway was contrived to an upper story. The rest of the house remains, to a great extent, as it originally was planned.

The alterations made, are first in the projection of a gabled addition in the centre of the building in front and rear, and in the elevation of the second story, and formation of pleasant sleeping-rooms therein.

The projection in front is built of stone, and to render the construction more readily performed, a simple arch is left in front, and the subdivisions for door and windows made of timbers.

This is marked No. 1 upon the plan, and is a hall of considerable size and intended for general use by the family as well as merely an entry. In it is the best stairway to the upper floor, and from it is the diningroom, No. 2, fourteen feet in width by twenty-two in length, the end of which projects beyond the rear line of the building, with a veranda on either side.

Upon one side is a parlor, No. 3, twenty-one feet by fourteen feet six inches, and excepting an alteration in height, this room remains undisturbed.

Upon the other side is the kitchen, No. 4, sixteen feet by fifteen; near to this, and connected with the

dining-room, is a bed-room, No. 5. In the space by the side of this is a staircase to cellar and upper floor, and closets to the bedroom and kitchen. At the end is a one-story building, containing a large store-room, No. 6, and a scullery and sink-room, No. 7.

The height of this story is ten feet; that being the top of the stone walls, the underside of the floor timbers resting thereon, and the plates extended beyond the walls, so as thoroughly to protect them and increase the size of the upper floor.

The chamber plan is arranged as follows:



PL LXXXII.-CHAMBER PLAN.

The principal staircase ascends to an open hall, No. 1, which is made light and airy by the stairs being left uninclosed. Upon one side of this is a sleeping-room, No. 2, above the hall below, nine feet by ten, and opposite to it is a linen and store closet, No. 3.

No. 4 is a large family chamber, attached to which is a spacious closet, and the dimensions of the room are increased beyond those of the apartment below by the manner in which the walls are extended, the size being sixteen feet by twenty-four.

A large room, No. 5, is above the dining-room, and has a closet upon one side near to the door.

Over the kitchen is No. 6, and has attached to it a closet made under a flight of stairs leading to the attic in the roof.

The back staircase from below is brought to an entry upon this floor, No. 7, from which ascend the attic stairs referred to.

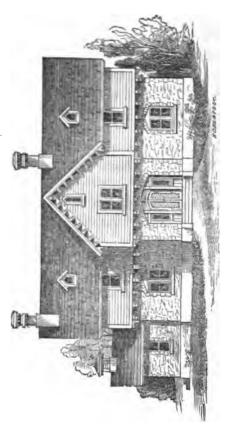
The remaining chamber, No. 8, is for the servants, and in the attic above sleeping space could be made for occasional use if needed.

The exterior has a symmetrical and sturdy appearance that would be very effective.

The masonry of the lower walls should be strongly marked, and the brackets supporting the overhanging superstructure should be bold and substantial.

The wood-work of the windows, roofs, and doorway, are so simple and unpretending in character as to require no remark, and the roof is covered with shingles.

The mode of construction by which the superstructure of the upper story is added is one which is of very ancient date. The plates upon the walls on the sides of the building overhang the building eighteen inches, and



P. LXXXIII .- PARM-HOUSE REMODELLED-ELEVATION.

the cross-plate rests upon their ends and not upon the wall, projecting over also eighteen inches, the space between the top of which and the underside of flooring-timbers, is filled in with masonry. The corner posts rest upon the side plates, with the outer face two or three inches within the outside line of the stone walls. The floor timbers rest upon the side plates, and also extend eighteen inches beyond the walls. Upon the ends of these a light timber is notched to receive the studding. The corner posts are tied across at the top, and have plates to support the roof timbers. Underneath the timbers that extend beyond the walls, is a light ceiling, finished with a drop fascia and supported upon brackets or having any other embellishment that this mode of construction suggests.

In framing for such a purpose, the roofs should have a high pitch so as not to throw any lateral thrust upon the posts; and the corner posts should be placed double, and may be braced at top and bottom in a manner that may even be made ornamental within the rooms. An advantage of this mode of adding an upper story is the protection of the walls by overhanging, and also the distribution of the weight of the superstructure. The pictorial effect of an old building so added to is very pleasing, and the difficulty of blending two materials so opposite in their character as timber and stone, is overcome by the marked difference between the lower and the upper portions of the dwelling.

In painting the wooden portions of this farm-dwelling,

a color should be chosen resembling the tint of the stone work, but somewhat lighter in tint; and if wished, the walls and general surface may be such a hue, and the relieved portions, such as window frames, cornices, brackets, &c., both upon the stone and the wood-work, may be all of another color; one, however, that is lighter and not of too violent a contrast.

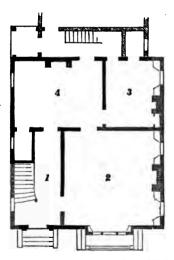
By this means a lively and cheerful appearance will be given to the dwelling, and seen amid the varied green of luxuriant foliage, the colors will pleasantly contrast.

The state of the old house and the extent of remodelling required, prevents an estimate of the cost of such an addition to a building resembling in size and character the one described; the additional walls of the projecjections below and the new work above, exclusive of any general repairs, would require an expenditure, probably, of about fifteen hundred dollars; and, perhaps, in some situations a smaller amount would suffice. The completed dwelling forms a design equally adapted for a country residence as a house upon a farm.

ADDITIONS IN PLAN TO AN OLD HOUSE.

Oftentimes a farmer has an old building sufficient for all his business wants, and affording all the rooms he requires for his farm purposes, but to which he seeks to add pleasant living-rooms; those which supplied the place heretofore being devoted to other purposes. Occasionally such a want is felt by the occupants of houses, that, once standing in the open country, are by the growth of the city, sprung up since their erection, made part almost of a suburb. Home associations that cling about the old fabric forbid its removal to make way for a more modern building, and a plan is desired by which the farm-house may be retained and rooms adapted to more of city life be added, perhaps with the intention sometime of removing the old homestead and completing a residence in its place, of which the new portion now to be added may form a wing.

Many other situations and circumstances may be sup-



PL. LXXXIV .- ADDITION TO AN OLD HOUSE-PLAN.

posed that would render a plan for such an arrangement desirable, and an example is offered of an addition to an old farm building of moderate size.

In this place a square block is added to the front of the old building, which is not represented, as its arrangement stands unaltered, and does not differ from the usual houses remaining in country places, that were built fifty years or more ago. The situation, that once had been that of a small farm-house in the open country, has become changed, by the growth of buildings around it, into almost a suburban character; and the added building in front has, therefore, a villa-like appearance.

The addition consists of a square, thirty-two feet front by thirty-six in depth, and contains upon one corner a large entrance hall, ten feet by twenty, marked No. 1, upon the plan, and in it is the principal stairway. Above this upon the second-story, a square partition is made projecting above the roof as a dwarf tower, a feature desirable on account of the view, and essential to prevent a clumsy effect by the junction of the new building to the older portion, which, being lower in height, required some gradations in the elevated portions to produce picturesque result.

Upon one side of the hall is a parlor, No. 2, twenty feet square, at the side of which is a fireplace, and the window on either side is cased out, so as to carry the line of wall upon that side unbroken by projection of the chimney-breast. The deep reveal thus left to each window, affords a convenient recess for folding blinds

or shutters. A similar convenience is obtained by the arrangement of the window in front, which projects out from the face of the wall, and gives side-space sufficient for the blinds. In front of this window is a balcony with balustrading.

In the rear of the parlor is a chamber, No. 3, ten feet by fourteen, with a fireplace and side-window, and a door communicating with an entry, which forms a portion of the old house, at end of which the chamber has a large closet.

The dining-room, No. 4, occupies the residue of the space upon this floor, and is twenty feet by fourteen. At the outer side is a fireplace, and from the end next the hall is a door to a large pantry under the staircase, which, being lighted by a window at the side, would form a convenient store and china closet.

Beyond this new part of the building is an entry, connecting it with the kitchen and other rooms in the old house. This entry contains a staircase to the cellar, and to the floor above, and at its end is a porch protecting the rear or side-entrance to the house.

Upon the chamber-floor are three large rooms the size of those below, and one above the hall, ten feet square. Above this again is an upper room, forming the tower, and to be used either as a chamber or observatory, as the family may prefer, a stairway being made from the hall and hall bedroom into it.

These rooms communicate by a flight of steps with the second floor-entry of the rear-building, leading from a door in the chamber above the dining-room. The height of the lower floor of the new building is eleven feet, and of the chambers nine feet in the clear, the cornice of the roof being made at such a height as will permit the roof of the old building to finish under and against it. There is space above the ceiling of the second story, for storage in the roof, to which the stairway, conducting to the upper room of the tower, may open.



PL LXXXV .- ADDITION TO AN OLD HOUSE-ELEVATION.

The front of this building is such as to make it fitting as a design for a distinct dwelling. The style is Italian, and the finish is adapted to a situation, such as that which has been described. The old building corresponds very well with the finish of the new portion; the

roofs are below its cornice, and a veranda extends from the porch beside the rear door along the side. The roof of the old building projects, and under it brackets are placed, corresponding in character to those of the new portion.

The cost of this added portion of the dwelling would be about sixteen hundred dollars, and the outside finish should be smooth ceiled.

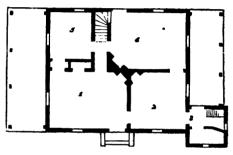
Oftentimes a farmer has upon his place an old building, the frame of which is sufficiently good to permit a thorough change of the plan, both within and without. Many an old place has such buildings remaining upon it, and the owner is occasionally at a loss to know in what manner to bestow them.

Such frames are usually nearly square and the posts low and roofs sharp, with heavy timbers, and oftentimes resting upon good foundation-walls, with cellar below, and chimney in the centre.

The owner of such a frame, at times concludes to move it from its original position, and place it where the altered building may serve some other purpose.

The following example shows how such a frame can be converted into a pleasant residence of small size.

The intention in this case is to use it as a gate-house, a portion being added to the original plan for both useful and ornamental purposes; in other respects, or even with this feature, the illustration presents a plan suitable for a moderately sized farm-cottage, or small country-dwelling.



PL LXXXVI.—OLD FRAME-BUILDING CONVERTED INTO A GATE-HOUSE— PLAN.

The frame is thirty feet front, by twenty-six in depth, and rests upon stone underpinning and foundation-walls carried a sufficient depth to form an airy cellar under the whole building.

Upon one corner a small square turret is added, which may be omitted, if not rendered useful by the position and purpose of the altered dwelling.

The object of the tower is to form a porch for sideentrance; and to permit the gate to be brought more immediately under the command of the occupants of the cottage, and by a mechanical contrivance connected with it, to open the gate at will without the necessity of going out of doors.

For other purposes the plan is complete without this feature, and is thus arranged:

In front is a canopied porch sheltering the entrance door, which leads into a parlor, No. 1, sixteen feet six inches by twelve feet six inches. Connected with the room is a large closet.

Upon one side of this room is a living-room, No. 2, twelve feet by twelve feet six, opening from which is the entry, No. 3, formed by the tower, one half of which is made a store-room. The dimensions within the tower are eight feet six inches square, and the outer door leads on to a pleasant veranda.

In the rear of the living-room is the kitchen, No. 4, a large room, the same dimensions as the parlor.

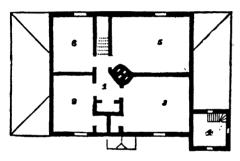
From this is an outer door, protected by a porch, near to which is an entry containing a stairway to chambers and cellar, and from which is entered a bedroom, No. 5, nine feet by ten feet six inches.

An entry connects this room with the parlor, and in it are spaces for hanging clothes, inclosed with doors and fitted with drawers.

A central chimney-stack affords the opportunity of providing fireplaces to these rooms, and if necessary, a stove-pipe from the chamber could be carried into one of the flues.

Upon this side a veranda corresponds with that upon the other, and in the rear of the cottage is a small outbuilding, ten feet by thirteen, containing wood-shed and necessary, and finished in rustic manner to harmonize with the dwelling.

The height of the lower floor is eight feet six inches in the clear, and the rooms above are four feet to the plate, and rise to nine feet overhead following the pitch of the roof.



PL. LXXXVII.-CHAMBER PLAN.

The chambers are arranged in a manner to give an abundant supply of rooms as well as ample closet space, and are thus divided.

The stairs ascend to a landing, nearly in the centre of the house, No. 1, and at the end is a large linen or store-closet, in the rear of which a space is divided into two closets, one of which is attached to each room that adjoins it.

No. 2 is a chamber, nine feet by twelve feet six inches, and is lighted by a gable-window upon the front.

No. 3 is a large room, the same dimensions as the living-room below, having a large closet, similar to one provided for the chamber, No. 2.

The tower contains a separate sleeping-room, No. 4, to which access is gained by a narrow stairway from the porch below. This room is intended to be occupied by a hired man or boy at work upon the farm.

No. 5 is a large family-chamber, of the same dimensions as the kitchen beneath it, and upon the other side of the passage is a chamber, No. 6, nine feet by twelve feet six inches.

The chimney-stack affords direct means of communication with two of the sleeping-rooms, and a large flue is recommended to be left for ventilation, with an opening near the floor and ceiling of the upper entry, and by leaving apertures in the lower and upper panels of the doors, a circulation of air throughout the sleeping-rooms may be depended upon.

The style of the exterior resembles somewhat that of the Swiss châlets, and is effective and lively, without being whimsical in design, or too richly ornamented.

The extent of accommodation afforded by the plan would render this erection suitable for other purposes than the description indicates, and a picturesque exterior has been given to it to render the dwelling suited to the beauty of the situation in which it is placed, and in harmony with the buildings to which it may be considered an adjunct.

If the reader finds in this an example of the building



PL. LXXXVIII .- EXTERNAL VIEW.

he himself may seek, the idea conveyed by the term gate-house will impress falsely as to the real character of the dwelling.

In this particular case the owner required a building affording, however, all the convenient accommodations embraced in this, but so situated as to serve a double purpose and allow some attention on the part of the occupants to the adjoining entrance gateway. Independent of this, the cottage is a dwelling of moderate size, and finished in a manner that renders it a suitable home for a family.

The overhanging roofs, canopies, gables, and other details, greatly enrich the building, the picturesque appearance of which is increased by the tower upon the corner.

The upper portion of this contains a dove-cot, the interior of which is reached from the second-floor room, in the tower.

The roofs are of high pitch, and the chimney-stacks are built of brick, their plan forming a cross upon a diamond shaped base.

The illustrations represent a cottage now in process of construction, formed by alteration of an old frame, and the contract price, including the outbuildings in the rear, is seventeen hundred and fifty dollars, for its entire completion.

The situation suited to this cottage is at the base of steeply rising ground, crowned with trees, the outlines of the building requiring a dark background for their proper display.

At this point, dear reader, I must bid you pause; the limits of this present volume forbid extension of the examples of the almost innumerable instances that occur to me of successful alterations of old buildings. The attention bestowed upon this subject has not received the just amount of consideration that it requires, and an architect is rarely consulted on such occasions. It is true, however, that no branch of the profession more requires skillful thought and planning, than the successful remodelling of an old house; and an owner that has one will find the fee of his professional

adviser most deservedly bestowed, for an ingenious conversion of an inconvenient and inadequate old building into a pleasant and well-contrived dwelling, having about it the charm of having grown to the place, joined with the modern appliances and improvements of the present time.

It is comparatively much more easy to design a new building than to ingeniously adapt an old one to modern life; to do the latter requires skillful planning, ready contrivance, and truest artistic feeling, which seeks to vest the new erection with the sentiment congenial to the place. In this chapter the country residence represented upon pages 234, 242, and the view accompanying them, should be recalled to mind, as the building is an alteration of an old house, and affords an example of what may be done upon a larger scale than the foregoing designs are intended to reach.

FARM OUTBUILDINGS.

The barns and other buildings required upon a farm, should be conveniently arranged, well sheltered, and of such architectural character as conformity to the dwelling-house requires. They should be compactly planned, and near enough to the house for convenient access,

but sufficiently removed to prevent their becoming an annoyance.

A favorite plan in England and in Holland, is to arrange the farm-buildings around a hollow square, by which means a sheltered inclosure is formed in the centre, and in winter is used as a straw yard for cattle. Of late years many forms have been suggested into which to throw the various plans of farm-buildings—amongst them a large circular edifice has found many advocates. But the truth appears to be that the outside boundary lines of the building or buildings are of comparatively little importance, and may be made whatever the shape of the land best admits; the internal arrangement of each portion and the proper disposition of one adjunct with another is the consideration of greatest weight.

No absolute rule can be named that will guide to the preference of any one particular form; and a skillful rural architect will be able to adapt his various buildings to any outline that the ground requires.

It is not within the scope of the present volume to offer any designs for barns and other farm-buildings; a separate book will be devoted to their special consideration, and I close the chapter with the general remark, that all farm outbuildings are as worthy of careful planning, and as capable of being made of pleasant, though unadorned, appearance as the country residence.

A large farm-house, with its widely spreading out-

buildings, and all the busy evidences of successful farming around, is a beautiful feature in rural scenery, and needs little help from outward ornament, if honestly devised, each building properly proportioned and the whole grouped together with tasteful care.

PART THE FIFTH.

NOVEL MODES OF BUILDING.

CHAPTER IX.

CONSTRUCTIVE AND MISCELLANEOUS DETAILS.

OUT-DOOR EMBELLISHMENT.

THE genius of the present age is eminently constructive. Improvements of every kind, and ingenious contrivances for easily effecting results, which in past ages were only accomplished by slow and laborious effort, mark the onward march of progress. In olden times, unwearying patience, and high artistic feeling supplied the place of recently improved mechanism, and buildings were constructed then by processes that must ever appear wonderful, considering the simplicity of the machinery that modern research has discovered to have been all that workmen had to aid them in their toil.

It is true, however, that with all the appliances of machinery, and with our superior knowledge of the mechanical sciences, the arts themselves are not in the present day gifted with so high an excellence as in time past; some processes are even spoken of as lost arts, as for instance the means of coloring some of the tints of stained glass, and the true mode of painting in fresco; but in the every-day details of life, the mechanics of the present day give us means of increasing our comfort in a manner very superior.

To this country the world is indebted for some of the most important improvements in mechanical appliances brought to bear upon the better supply of the conveniences, comforts and safeguards of domestic life. The first originator of successful fire-proof covering for buildings was an American, who brought to practical issue the theories and experiments of many who in other countries had gone before, and which, though not so well known here, has been used with entire success in different parts of Europe, by Leconte, Varden, and others, who took the idea from the American patent of Mr. Louis Pambœuf.

The most reliable, and only cheap means of warming the several rooms of a dwelling by one fire, is of American origin and manufacture, and many of the processes of builders in this country are entirely original, particularly those which apply to timber constructions.

On the other hand, some of the cheap modes of building adopted in Europe, and of considerable antiquity, are slightly known here. Amongst them may be mentioned the manner in which what are called the *Devon-shire Cob-walls* are laid, and which, though somewhat

similar to the walls of South America, differ in their composition and mode of erection.

Cob-building.—Cob-walls are made of clay-loam, mixed with chopped fibres of hay, straw, or other similar dried vegetable substances, and moistened with water. They are laid in layers, within board-frames, which are shifted as the work proceeds, and the durability and strength of the walling depends upon the time allowed for its thorough settlement and drying. When properly formed and hardened, such walls are as strong as stone, and resist the weather to even a more absolute degree. Instances are recorded of walls so built, which now stand in substantial repair, in England, and are upwards of two centuries old.

Mud, or tempered walls, resemble the adobe construction of the Mexican plains, and properly built are durable. The gravel-wall is of a different character, and may be found described page 259 of my former work—Rural Homes.

A material in common use—brick—is not manufactured in this country to the advantage that is derived in England. Within the last few years repeatedly made experiments to provide a stronger, dryer, better ventilated, lighter, and cheaper brick-wall, have resulted in the manufacture of hollow bricks, which appear to have many advantages over those in common use.

Their superiority is claimed by the advocates for their use-

In preventing dampness;

In checking absorption, or passage of heat;

In being a security against fire;

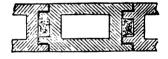
In preventing the passage of sound;

In being much lighter;

In being, from their form, better dried, and therefore burnt harder and stronger;

In being more cleanly, because making a closer joint; In being cheaper.

The form in which they are made is represented in the annexed drawing, and it is certainly worth while to try their manufacture. They could be made by any tile-machine, and are laid dry, liquid cement being poured into the hollow space at the end of each brick.



PL LXXXIX .- PLAN OF HOLLOW BRICK.

Piers should be built at every opening, and it is recommended to erect them every three or four feet in a long length of high wall.

Whatever may be the opinion as to the advantage of constructing external walls in such a manner, there can be no doubt of their applicability for inner partitions. Many experimental buildings have been erected near

restrict

London, composed entirely of such material, and engineers have given an opinion that a new era is opening in construction of brick buildings, and many old and time-honored prejudices, as to their proper use, will be exploded. As it is, the hollow brick is in large demand, and in conjunction with it flue-bricks with a circular core, two to each course, are now used.

A curiosity in the way of brick-work has been brought to light in the shape of a remarkable kind of floating brick, which was in use by the ancients in various portions of Spain and Asia Minor. Pliny speaks of these, and describes them as possessing a remarkable strength, and a power of enduring heat to so great an extent that, whilst one end was made red hot in a fire, the other end could be safely retained in the hand. Their specific gravity was so little, that they would float on the water. Like many other arts of the ancients, the method of making these bricks as well as the material, have been forgotten; but a few years ago a discovery was made simultaneously in Italy and in Cornwall, England, of a light earth, now known as "mountain-meal," of which similar bricks can be constructed, and which was probably the substance of which those in ancient times were manufactured. Who knows, therefore, but this generation may yet have the choice of living in houses fire-proof, water-proof, and capable of aquatic locomotion?

Brick-walls compounded of the ordinary material, should in all cases be built hollow, that is with spaces

between their inside and outside face. The advantages of such a mode are too apparent to need comment, and builders are now generally adopting the plan.

Stone Walls.—Frequently the abundance of material at hand tempts a builder to employ a stone, durable and cheaply laid, but of quality too rough for any external finish. In such a case he needs some covering for the outer face, and as a suitable mode of rough-casting, as this process is called, the following is recommended.

The wall is first pricked with a coat of lime and hair, on which when set, but not entirely dry, a second coat is laid, and as fast as the workman finishes its surface another follows him with the rough-cast, with which he plentifully bespatters the fresh plastering, and smooths it with a coarse brush, so that the whole may dry together. The rough-cast itself is equal quantities sifted gravel, washed two or three times, and pure lime, mingled with water to a state of semi-fluid consistency.

This composition is adapted as a covering to any other walling, and is durable and inexpensive.

Timber Houses.—Wooden dwellings are almost indigenous to America, and it is well her vast forests so cheaply offer her myriad children the means of so cheaply providing themselves homes.

Various modes of construction are employed, but of those most commonly in use a framed building, covered with outside-sheathing, and made warm by filling it with brick or mortar, is that which in the more thickly settled portions of the country is generally preferred.

There is no doubt that if the subject received closer attention, a better mode of framing than that generally employed, could be suggested. Timbers are often unnecessarily heavy, but are afterwards so weakened by the mode of framing which is in vogue, and which compels the cutting of mortices and tenons and insertion of one timber into another, that the frame is less substantial than if constructed of lighter stuff differently put together. It is difficult to persuade carpenters of this, and yet examine an old building, and you will always find decay has commenced in all timbers at the points of junction and insertion.

In placing the corner-posts, always have them double. They may be lighter in scantling, say five inches by eight, or four inches by eight, as needed, the end of one coming against the head of the other, and bolted or joined together as their length may require; thus:



PL. XC.

By this means the corners are always steady, there is less thrust from the roof, and necessity of tying by heavy interties and braces is lessened. A short time ago a frame-building, the posts of which were thus arranged, was accidentally destroyed by fire; after all had been consumed around them, the corners remained standing alone, and required very great efforts to dislodge them from their perpendicular position.

With posts thus placed, where is the necessity for tenon and mortice? The lower study rest upon the sill, support a beam, and thereon a second row, and above all the plate; what thrust is there that can dislodge these from their place, when the siding is on, and the floors are laid? And why would not simple strips, top and bottom on each side of the study, attached at the ends to the posts, in buildings of moderate size supply all the tie requisite? It seems to me, better multiply perpendicular posts, than give chance for decay by incisions for mortices.

The New York Tribune of January 18th, 1855, reported a meeting of the American Institute Farmers' Club, and contained amongst other items some remarks from one of the members upon a novel mode of constructing cheap wooden dwellings, from which I offer the reader the following extracts, remarking that, where he details the mode of forming his corners, I would suggest a double piece placed as before described, and for the same reasons:

HOW TO BUILD BALLOON FRAMES.

"Mr. Robinson said: At our last meeting I made some remarks, which were followed by others, upon the subject of 'Balloon Frames' of dwellings and other public buildings, a slight sketch of which I published in The Tribune, not deeming it important to enter into the minutiæ of hours to make such buildings. that I did not appreciate the importance of the subject, for I have received a score of letters and personal inquiries from various parts of the country, showing that a great many farmers would like to know how to build a farm-house for half the present expense. I therefore ask the indulgence of the Club, while I start a balloon from the foundation, and finish it to the roof. would saw all my timber for a frame-house, or ordinary frame outbuilding, of the following dimensions: Two inches' by eight; two by four; two by one. I have, however, built them, when I lived on the Grand Prairie of Indiana, many miles from saw-mills, nearly all of split and hewed stuff, making use of rails or round poles, reduced to straight lines and even thickness on two sides, for stude and rafters. But sawed stuff is much the easiest, though in a timber-country the other is far the cheapest. First, level your foundation, and lay down two of the two-by-eight pieces, flatwise, for sidewalls. Upon these set the floor-sleepers, on edge, thirtytwo inches apart. Fasten one at each end, and, per-

haps, one or two in the middle, if the building is large, with a wooden pin. These end-sleepers are the end-sills. Now lay the floor, unless you design to have one that would be likely to be injured by the weather before you get the roof on. It is a great saving, though, of labor, to begin at the bottom of a house and build up. In laying the floor first, you have no stude to cut and fit around, and can let your boards run out over the ends, just as it happens, and afterwards saw them off smooth by the sill. Now set up a corner-post, which is nothing but one of the two-by-four studs, fastening the bottom by four nails; make it plumb, and stay it each way. Set another at the other corner, and then mark off your door and window places, and set up the side-stude and put in the frames. Fill up with stude between, sixteen inches apart, supporting the top by a line or strip of board from corner to corner, or stayed stude between. Now cover that side with rough sheeting boards, unless you intend to side-up with clap-boards on the studs. which I never would do, except for a small, common building. Make no calculation about the top of your studs; wait till you get up that high. You may use them of any length, with broken or stub-shot ends, no matter. When you have got this side boarded as high as you can reach, proceed to set up another. In the meantime, other workmen can be lathing the first side. When you have got the sides all up, fix upon the height of your upper floor, and strike a line upon the studs for the under side of the joist. Cut out a joist four inches

wide, half-inch deep, and nail on firmly one of the inch strips. Upon these strips rest the chamber floor joist. Cut out a joist one inch deep, in the lower edge, and lock it on the strip, and nail each joist to each stud. Now lay this floor, and go on to build the upper story, as you did the lower one; splicing on and lengthening out studs wherever needed, until you get high enough for the plate. Splice stude or joist by simply butting the ends together, and nailing strips on each side. Strike a line and saw off the top of the stude even upon each side—not the ends—and nail on one of the inchstrips. That is the plate. Cut the ends of the upper joist the bevel of the pitch of the roof, and nail them fast to the plate, placing the end ones inside the studs, which you will let run up promiscuously, to be cut off by the rafter. Now lay the garret-floor by all means before you put on the roof, and you will find that you have saved fifty per cent. of hard labor. The rafters, if supported so as not to be over ten feet long, will be strong enough of the two-by-four stuff. Bevel the ends and nail fast to the joist. Then there is no strain upon the sides by the weight of the roof, which may be covered with shingles or other materials—the cheapest being composition or cement roofs. To make one of this kind, take soft, spongy, thick paper, and tack it upon the boards in courses like shingles. Commence at the top with hot tar and saturate the paper, upon which sift evenly fine gravel, pressing it in while hot—that is, while tar and gravel are both hot. One coat will make

a tight roof; two coats will make it more durable. Put up your partitions of stuff one by four, unless where you want to support the upper joist—then use stuff two by four, with strips nailed on top, for the joist to rest upon, fastening altogether by nails, wherever timbers touch. Thus you will have a frame without a tenon or mortice, or brace, and yet it is far cheaper, and incalculably stronger when finished, than though it was composed of timbers ten inches square, with a thousand auger holes and a hundred days' work with the chisel and adze, making holes and pins to fill them.

"To lay out and frame a building so that all its parts will come together, requires the skill of a master mechanic, and a host of men and a deal of hard work to lift the great sticks of timber into position. To erect a balloon-building requires about as much mechanical skill as it does to build a board fence. Any farmer who is handy with the saw, iron square and hammer, with one of his boys or a common laborer to assist him, can go to work and put up a frame for an outbuilding, and finish it off with his own labor, just as well as to hire a carpenter to score and hew great oak sticks and fill them full of mortices, all by the science of the 'square rule.' It is a waste of labor that we should all lend our aid to put a stop to. Besides it will enable many a farmer to improve his place with new buildings, who, though he has long needed them, has shuddered at the thought of cutting down half of the best trees in his wood-lot, and then giving half a year's work to hauling

it home and paying for what I do know is the wholly useless labor of framing. If it had not been for the knowledge of balloon-frames, Chicago and San Francisco could never have arisen, as they did, from little villages to great cities in a single year. It is not alone city buildings, which are supported by one another, that may be thus erected, but those upon the open prairie, where the wind has a sweep from Mackinaw to the Mississippi, for there they are built, and stand as firm as any of the old frames of New England, with posts and beams sixteen inches square."

These remarks were confirmed by the testimony of other members present, who testified to having adopted the mode of framing referred to with entire success. Their statements are as follows:

"Mr. Youmans corroborated Mr. R.'s statements, and related many interesting facts relative to the building of San Francisco and other California towns, which never would have been built if the old plan of framing had been pursued. Besides, anybody could work at the business of house-building. He had adopted the plan on his farm in Saratoga county, where he found great difficulty in getting carpenters that would do as he wished. They could not give up tenons and mortices, and braces and big timbers, for the light ribs, two by four inches, of a balloon-frame.

"Paul Stillman said that he had seen a whole block of houses built in two weeks at San Francisco, and better frames he never saw. They were put up a story at a time—the first two floors often laid and lower part of the frame sided and in use before the upper part was up.

"Not one-quarter of the weight of timber in an oldstyle frame is used in a balloon. It is a matter of the utmost importance to farmers to understand what an immense saving may be made by this mode of building. The chairman said that he certainly should try it upon his farm another year.

"Prof. Mapes said that he had a house thirty feet square, two stories high, put up for his workmen, that gives comfortable accommodations to four families, upon contract, on this plan, for five hundred dollars. He says that a Mr. Woodruff, of Newark, has built a great many of this kind of cheap tenements for the poor, which he can rent for half the usual charge on a brick house, and still make more money."

OUTSIDE PAINTING;

The tint of a house is a matter of considerable importance. Although difficult to give directions for mixing colors, on account of the great difference in quality of the pigments to be procured, and which helps materially the hue of the whole mass when mingled, a few receipts are offered for colors suitable to the exterior of frame or other buildings.

A cool grey, similar to what would be the tint of unpainted timber after a few years, may be obtained as follows:

Indian Red, half a pound; Lamp Black, three ounces;

Raw Umber, half a pound, mixed with one hundred pounds of White Lead.

This color will be changed by the addition of sand, which in all cases is recommended, in a proportion of about one quart to every one hundred pounds of mixed color. The finest and whitest sand that the neighborhood affords should be used, and as its hue differs so will the tint of the paint be changed.

This color, with one-third less white, is very suitable for roofs, and is a cool, unreflecting grey tint of great softness and beauty.

Cream color, No. 1.—A soft pleasant tint like that of coffee greatly diluted with milk, is oftentimes well adapted to a building, particularly in regions where red sand stone or other similar objects, with such local coloring, give a brown hue to portions of the landscape.

It may be mixed as follows:

Yellow Ochre, five pounds; Burnt Umber, half a pound; Indian Red, quarter of a pound; Chrome Yellow, No. 1, half a pound, with one hundred pounds of White Lead.

The key notes in this color are the Indian Red and the Chrome Yellow, and the tone may be brightened or lowered by more or less of either, as individual taste may prefer.

No. 2.—A still more delicate tint, resembling the pure color of the Caen stone, and well adapted for a large building with many beaks of outlines, may be mixed thus:

Yellow Ochre, two pounds;
Vandyke Brown, quarter of a pound;
Indian Red, quarter of a pound;
Chrome Yellow, No. 1, half a pound to every
one hundred pounds of Lead;

A dark color destroys all the play of light and shade cast upon the building, and prevents display of any enriched portions, by robbing them of their shadows.

The mineral paints recommended as fireproof are very objectional in this respect; and when the owner fancies any better security in their use, he should order some of the zinc preparations, which are of comparatively a light tint.

In painting upon brick the color selected should be very much lighter when put on than the owner intends to be seen upon the completed building. The tint of the brick will always assert its presence, and therefore this becomes necessary. No material is more difficult satisfactorily to paint; there is apt to be an opacity and muddiness about the color that is very unpleasant to the eye. This, in a great measure, arises from the rapid absorption of the oil; and to prevent it, a coat of oil mixed with almost any material, to give a better body, should first be applied, and then the surface will be better prepared for coloring.

Many other receipts could be offered for external colors; but the reader, who will try each one that has been given, will find he has a scale which he can extend at will, by a larger or smaller proportion of any one of the enumerated ingredients.

Outbuildings and cheap dwellings, fences, gates, &c., may be coated with paints more cheaply prepared than the foregoing, which are intended for oil.

Of these the most durable are those in which lime white, wood ashes, and resin, form constituent parts; and when the locality places gas tar at command, a very cheap pigment may be made by mixing it with lime and sand, which will last a long time, but requires to be put on hot.

Internal Painting.—The many delicate tints that house-painters employ should be preferred to pure white, which is too commonly used. For certain purposes a highly polished purely white is suitable, but only in portions of the internal wood-work that stand out in relief against a tinted background, such as a painted or papered wall affords.

When wood-work and plaster join, and each is left purely white, the former, which is necessarily painted in oil color, however pure may be the tint at first, is apt to assume a yellowish cast, slight in itself, but sufficient to show its hue in comparison with the crude whiteness of the plaster. This arises from the oil, and is prevented almost entirely by painting with the finish called satin gloss, but may be cheaply obviated in the first instance by using the following precautions.

First pour out the oil to be used into a clean jar, and put in a small lump of clear lime. Let it stand a couple of days, skimming the surface several times. Strain and return to the jar, and if any scum arises, clear it off before mixing with the lead or zinc. Before painting give the wood-work one coat of lime white and thin size, and when dry use the oil color in the usual manner. By so doing the white will retain its unsullied purity.

Many stains may be employed for wood-work, which is intended to be left unpainted.

Muriatic acid diluted to ten times its bulk, and tinted with Anotta, stains pine a rich and lively color. Tobacco may be used for the same purpose.

After the tint has been given to the wood, the following should be put thereon with a brush.

Boiled Oil, one gallon; Linseed Oil, one gallon; Best Beeswax, three ounces; Turpentine, half a pint. When dry the whole should be well rubbed with a coarse woolen flannel, and the oiling repeated as often as necessary, till the degree of polish desired has been obtained.

Frequently the exterior of a framed house is wished to be retained unpainted, in which case the following preparation may be used.

Tar, one gallon;
Turpentine, one gallon;
Powdered Resin, one pound;
Boiled Oil, one quart.

By using this mixture the grain of the wood is displayed, and a brightness of color and glossy finish given to the exterior, more lively in effect than can be obtained by opaque painting.

FIREPLACES AND WARMING APPARATUS.

The usual mode of constructing flues and fireplaces is too well known to need remark. There are, however, defects in the common open fireplace, and in the manner in which chimneys are usually built, which may be remedied.

The cheerfulness and pleasant home-like aspect given to a room by an open fire will render such a method of warning an apartment always in favor, and in many houses where a furnace is used, the principal rooms have coal or wood-fires burning on the hearth, as much for the appearance of comfort as the added warmth.

All must, however, admit that an open fireplace wastes an enormous amount of heat, and that the fuel consumed therein would suffice to raise the temperature of four times the area warmed by the radiation within the room, if made to burn in a properly constructed furnace.

The evils of an open fireplace are many in number, even after the important one of waste of fuel has been named, and consist, in unequal temperature in different parts of the room, in causing draughts, in liability to smoke, loss of time, and danger to life and property.

The draughts of air caused by the passage across the room of currents from any external crevices and apertures that exist, to feed the enormous upward rush constantly pouring through the chimney, is one of the worst evils, and causes the lower portion of the room to be cold to the feet and a bad ventilation. The circumstances which result in the latter annoyances are that the fresh air, which enters to supply the fire, being colder and specifically heavier than the general mass already in the room, lies at the bottom of this as a distinct layer or stratum, forming a dangerous coldbath for the feet of the inmates, and compelling the use of a foot-stool; whilst the imperfect ventilation, notwithstanding the copious draughts of air penetrating the

apartment, is caused by the fact that the decomposed air expelled from the lungs of the inmates, and arising from combustion of lamp or fire in the room, does not tend towards the mouth of the chimney, but to the ceiling; and as it must descend before it can come below the level of the opening, the same air may be breathed over and over again before it can reach the flue.

The remedy for each of these is as follows:

For loss of heat.—Insert at the back and side of all open fireplaces a large air-chest, the larger the better, made either in the brick-work smoothly cemented, or formed of sheet-iron, with soap-stone around the parts immediately in contact with the fire. Supply this reservoir with cold air brought through a pipe of sufficient dimensions, from outside the building, and let there be tin air-ducts leading from this into rooms above, by which means a large amount of the radiated heat will be imparted to the air oirculating through this air-chamber, and the upper rooms be warmed.

Defective Ventilation may be cured by, in all cases, building an air flue leading from outside the building, and discharging at the back of the fireplace, by which means an adequate amount of air is supplied for purposes of combustion, and, in addition, volumes of pure air warmed by contact with the fire, roll into the room and penetrate every corner. In addition must be an aperture near the ceiling, opening into an air flue in the chimney-stack, for the escape of impure gases from the upper portion of the room.

By these simple expedients the objections to an open fireplace may be removed.

GENERAL WARMING APPARATUS.

In no country are contrivances by which the several rooms in the house are warmed by one fire, so much in favor as in this, and no land possesses apparatus so fitly adapted to the purpose, and attainable at a cost so small.

In a former volume, a mode by which this was effected, by a warm-water apparatus, was described; but from its greater cost, although most excellent in itself, its use is confined almost entirely to the expensive residences of wealthy citizens, whilst hot-air furnaces, from their lower prices, are in rapidly increased demand. Of these the *Chilson* occupied the foremost rank in public favor, and is too well known to need description. The present year, however, has introduced an apparatus invented by Mr. Boynton, of the firm of Richardson & Boynton, the successors to Chilson & Co., which must rapidly supersede the older invention.

It is called the Improved Ventilating Furnace; is entirely novel in form and construction, and possesses the following peculiarities:

It has a larger amount of effective radiating surface than any other contrivance known; and has a curious, very valuable, and entirely novel feature in the peculiar formation of the firepot, by which its surface is very much increased, and the liability to overheating and cracking completely removed. This is accomplished by its form, which is broad and shallow, and has attached on the outside a number of fans (giving the pot somewhat the appearance of a cog-wheel), by which the power of the furnace is enormously increased.

It has also a self-clearing radiator, which is so simple and effective as to entirely obviate the necessity of cleansing.

Many other advantages may be stated which it possesses, beyond that of the best of the other furnaces in use, but space only permits me to add the following, which are peculiar to the make of the apparatus in question.

When set, the furnace is much less in height than any other, an advantage of utmost value when the easy angle of ascent, at which the distributing hot-air pipes can be placed, is considered.

Bituminous coal can be used equally well with that generally employed,—a peculiarity rendering the furnace adapted to the West.

The flues are so placed as to be nearly perpendicular from the firepot to the radiator, and are exposed to the direct action of the fire, so that all resinous matter arising from combustion, is readily ignited, and the flue burns clear, whilst the charred sediment falls into the chamber below.

This apparatus has stood the test of careful trial

before introduction to the public, and is manufactured in four different sizes by the firm named, in New York city.

The same firm also manufactures a furnace for wood, which has previously been referred to in these pages.

PLUMBING AND WATER SUPPLY.

No portion of the internal fitting and arrangements of a house requires such careful workmanship and skillful arrangement as its water-works. If properly done, they are a source of great comfort and luxury, but if imperfectly and unskillfully performed in the first instance, are an unfailing annoyance and expense.

In country-places it is often very difficult to get skillful workmen to perform the duties required by this branch of trade, and therefore I offer a few remarks upon some simple but important matters, which the owner can himself understand and direct, when he has to employ plumbers about his house.

The apparatus required, of course, must be sent from a neighboring city, and a little inquiry will point out the best description to purchase which the market affords; in setting the pipes and other fixtures he must depend upon such men as can be obtained, and should see to the following points:

One great objection to the conducting of water in

pipes through large buildings, is in their liability in winter to freeze, and burst. This may be obviated by properly locating the various apparata, so that they may be brought into connection with some source of artificial heat, by thoroughly cementing all apertures in outer walls, through which pipes pass, so that they shall not come in contact with the open air, and by placing every pipe whatever in such a position, that it will empty when the water is shut off, and not lie in the pipe and subject it to danger.

Great care should be employed in fastening and supporting all perpendicular pipes and fastenings; every eighteen inches apart, should be insisted upon, so that the strain may be equalized, and the pipes prevented settling and breaking away from their fastenings. Pipes are often seen in cheaply run-up-dwellings, fastened at intervals of five feet or more; the consequence is, that in a few months the natural contraction and expansion of the metal has been sufficient to tear them away from their bearings, and the whole machinery gets out of order.

All wood-work about sinks, baths, and other plumbing, should be omitted, as its presence only offers a harbor for vermin, and is apt to cause decay. In the kitchen the boiler should be placed three inches at least out from the wall, so that a brush may be passed behind it, and should stand upon cast-iron brackets or legs. The sink should be left open beneath, and supported in the same manner.

It is a great mistake to case and inclose water-pipes; better leave them entirely exposed, and when attached to wood-work, they should be screwed on neatly beaded narrow boards, the latter securely fastened to the walls. But as an improvement, iron strips or plates are recommended, with rings or collars screwed around the lead-pipes, and the plates inserted flat upon the walls and protected from rust by painting.

The work neatly finished in this manner may be made more an ornament than a blemish, and at all events for reasons of convenience and cleanliness, should not be cased over or concealed.

Tin pipes are frequently used to convey water from an aqueduct or ram through a house, and are considered more healthful than those of lead, which are supposed to affect the water that circulates through them.

Various machines are employed for the purpose of supplying a country dwelling with water from a distant source; of these the hydraulic ram is the most simple and economical, and with a sufficient fall of water to fulfill the requisitions of the principle upon which the apparatus works, is the best that can be used. The ram is in too common request to need any explanation or description, the only remark that occurs to me being to advise the closest care in properly protecting the supply or drive-pipe, so that fine stones or other substances may not pass through it and obstruct the working of the ram. To do this, a good plan seems to me, to let a pipe be bent down into a cup in the form

of a syphon, this of larger diameter than the supply pipe, and its aperture protected by a fine grating; from the opposite side of the globe or cup the neck of the drive-pipe springs in a similar curve, and at the bottom of the cup may be a tap which can occasionally be opened, and any deposit that may have collected will then be discharged. The drive-pipe should be very carefully made smooth in its bore, and be as direct in its course as possible, as upon the unimpeded motion of the water therein, will greatly depend the force of the ram.

Other modes of water-supply sometimes consist in machines set in motion by water or by wind, and are of various kinds. With a head of water, however, there can never be any difficulty in conveying it wherever its use is most in request, and the apparatus to be employed must be selected in reference to the cost and the local obstacles to be overcome.

Upon rapidly running streams, the levels of which are continually changed by freshets or dry seasons, other contrivances have to be resorted to. Of these a simple one is a floating pump worked by a wheel, the whole machinery being placed upon a raft attached by a chain to the shore; a flexible hose conveys the water from the pump to the pipe placed to convey it to its destination, and the whole contrivance rises and falls with the changing surface of the river.

OUT-DOOR EMBELLISHMENT.

A volume of substantial thickness could be profitably filled with designs and remarks applicable to the adornment of the grounds around a dwelling. Not only the useful adjuncts to a house are as worthy of an architect's attention as the residence, but in the disposition of the trees, walks, flower-beds, lawns and shrubbery, with all the natural and artificial embellishments they may legitimately receive, should his thoughts find embodiment; so that the dwelling and its belongings may be all one consistent whole.

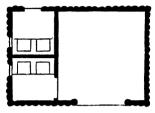
The duties of a landscape gardener are not necessarily encroached upon by this; for the architect would mostly only express his feelings as to the artistic effect to be sought; to do this, however, he must have some practical knowledge of the gardener's art, and in the rural practice of his profession, his services will not have reached their true elevation and value, unless he has secured the general directions of the grounds and outbuildings connected with the house.

Space will only permit a few remarks upon the outbuildings required by utility around a dwelling; those of embellishment must be left for a future volume.

In several portions of this work reference has been made to some simple, rustic building, containing those attachments to a country cottage which are generally made so prominent and unseemly.

An illustration is here offered of an outbuilding four

teen feet by ten, containing a wood-house and two separated necessaries, the door to one opening from the wood-house, and the other approached from the rear.



PL XCI .- OUTBUILDING-PLAN.

The plan is very simple and requires little explanation. In the necessaries are small outer windows, and in the partition within and in the end wall without are apertures for a current of air across the top.

The building is intended to rest simply upon sleepers laid upon a trench filled with broken stones, and the floor of the whole is formed in the usual manner. At



PL. XCII.-EXTERIOR.

one end is an opening, made so that a plank box, which fits beneath the seats, can be run out upon rollers, and its contents emptied upon the land wherever farm use requires. Or, if wished, a vault may be built in its stead.

The posts are seven feet high, and the roof projects two feet over the ends and sides, and rises steeply in the centre.

The posts are rough stems of trees, and the sides are of slabs nailed upright upon inner cross-ties, the inner side of the inclosed portion at the end of the building being lathed and plastered, or smooth-ceiled as preferred.

THE ICE-HOUSE.

After much discussion, the matter seems pretty well decided that an ice-house is better above-ground than sunk below it. The more simply it can be made the better, and a common, cheaply home-made affair often keeps ice longer than a costly, substantial structure, erected upon "scientific principles." Its absolute requirements may be stated as three; perfect protection, drainage and ventilation.

To secure the first, double walls, made in any manner that material at hand places most conveniently at disposal, with a space between as nearly air-tight as it can be made, and some non-conducting substance, such, for instance, as saw-dust, sand or gravel, or charcoal-dust, filled in between. The first of these is commonly the handiest, and must be packed tight; gravel or sand, when used, should be slowly filled in and every precautaken that they may be rammed to one solid mass.

Made in the ordinary manner, the thickness of walls should be not less than twenty inches for an ice-house of usual size, but when one of very small area is required, the walls must be greatly thicker to lessen the chance of radiation of external heat.

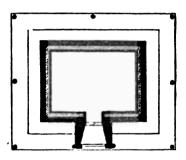
The drainage of an ice-house may be effected by digging a hole about three feet in depth and the same in diameter and loosely filling with stones; a drain may lead from this to the exterior, but if the ground will allow the moisture to leach, there is less danger of air finding its way up the drain. The floor should be gravel or cement, sloping every way towards the aperture for drainage.

For ventilation, an aperture should be made in the roof in any form that will admit a current of air, without exposing the interior to the rays of the sun or to rain.

Where it seems more convenient to place the icehouse wholly, or in part, below ground, all that is necessary is to protect the outside of the walls against the earth itself by cement-mortar or gravel, so that damp may not penetrate, and to provide an abundant means of blind-drainage.

Some authorities recommend the walls of an ice-

house to be simply made hollow, claiming that the air within will be sufficiently a non-conductor to keep the internal temperature unaffected; but air is so elastic, and capable of such rapid motion when raised in temperature, as it would be by the hot sunbeams playing upon the outer covering of the ice-house, that it seems scarcely possible the temperature within would not be increased, and the ice wasted.



PL. XCIII.—ICE-HOUSE—PLAN.

A plan of a small ice-house, above-ground, the roof of which overhangs so far as to afford shaded space for a pleasant seat on either side the porch, is here offered. It is very simple, and is intended not only as an useful but an ornamental appendage to a country-dwelling. The internal dimensions are fourteen feet by ten; eight feet high in the clear.

The roof projects four feet, and in front is a porch conveniently arranged as so to give a double pair of doors,

each one cased and filled in, and thus securing the entire protection of the ice within.

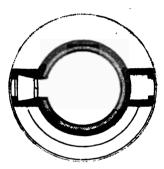


PL. XCIV.--ELEVATION.

The exterior presents this feature in detail, and shows upon either side a small alcove, six feet in length, by four feet deep, with a rustic seat, thus combining an arbor, and ice-house together. The roof is truncated on each side, is covered with ornamental shingles, and is crowned at the top with a ventilator, so made as to exclude the rain or sun, but to admit a free passage of air.

The building is finished in a simple rustic manner, and would cost but little.

In situations abounding in wild and rocky scenery, the adjuncts to the house require to be designed in a character that well accords therewith. Frequently in such a case the ice-house is placed on the side of a hill, and in comparatively an elevated spot, when it not only can be widely seen, but from its site an extended view can be obtained. Such a situation makes a seat valuable, and demands that the form of the building be picturesque when seen in relation to the scenery or the dwelling.



PL XCV .- CIRCULAR ICE-HOUSE-PLAN.

An illustration is here given of a circular ice-honse, with conical roof, the apex terminated by a ventilator.

The roof overhangs all around, upon one side is a projecting porch, contrived in the same manner as in the plan last described, and upon the other side a corresponding addition is made a tool-house.

In the rear the slope of the rocky hill-side abuts against the building, so that but little of the external wall is seen, and in front a seat encircles the wall, and stops against the projection upon each side.

The walls are intended to be of stone upon the exte-



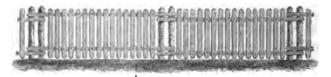
Pr. XCVI.-ELEVATION.

rior, with an inner space of eight inches to a foot, filled in with charcoal-dust, or saw-dust, and plank inner walls supported upon framing. The dimensions are twelve feet internal diameter, and ten feet in depth. The external finish is of rough masonry, the projecting roofs are supported by rustic beams, and the outside-flooring below the seat is of hexagonal blocks of wood set upwards, and around them a stone sill or coping.

The cost of this will be greater than that of the plan last described, and is only recommended where the stone is readily and cheaply laid. The same form may be built upon in other material.

FENCES AND GATES.

The variety of material adopted to this purpose, forbids but a hint as to a rustic use of the timber found in nearly every part of the country. The following illustration of a tasteful and simple fence, explains itself, and is made in character to be appropriate with the foregoing outbuildings.



PL XCVII.-RUSTIC FENCE.

The posts are in pairs, about a foot apart, are deeply sunk in the ground, and without any other preparation than being cut to the required length. Each pair is inserted about twelve feet apart, and between them a rail is nailed near the top and bottom, each one alternately above and below the one that is next to it in the manner represented. The rails overlap each post, and upon them upright strips are nailed, the whole forming a strong and inexpensive fence of rustic finish and pleasing character.

In illustration 98 a gate is shown to correspond, framed of open timber; and if forming an opening from a public road, iron wire rods should be inserted in it



PL. XOVIII .- RUSTIC GATE.

to keep out pigs and other intruders in the manner represented.

Frequently, in a garden, a fence is needed as much as a screen and protection from cold as for a means of separation.

In plates 99 and 100 are designs for the front and end of a simple fence designed for this purpose.



PL XCIX.-GARDEN FENCE.

The fence is made of such a length as convenience requires, and at each end an abutment is retained in the manner shown by the representation of the end. It is also proposed that at intervals of every thirty feet or thereabouts, this buttress should be repeated, by which means the whole will be strengthened, the monotony of

a long line prevented, and additional corners and space to train fruit, vegetables or flowers be gained.



PL C .- GARDEN FENCE-END VIEW.

The posts are ten to twelve feet apart, and the timber, which is in its natural state, is capped by a cone-shaped termination to protect from the weather. Between each post a strip is nailed top and bottom, against which tight upright boards are fastened, their joints being covered by a lath or batten nailed over.

At the top an eight inch board is nailed at an angle to project over the front side, and above this, trelliswork may be added if necessary.

The intention is to consider this screen as a wall, to shelter the garden, equally as a surface upon which to train plants and flowers, and in effect would be pleasing, and inexpensive in cost.

The natural adornments about a house, as obtained by trees, lawns and flowers, are what every owner may work out for himself, with time and patient care. It is to be lamented, however, that so few places come into the hands of an owner capable of appreciating their beauties in a natural state. Trees have been cut down, surfaces levelled, and other destroying agencies have been at work, so that the endeavor of the first few years is apt to be, to undo what has been done before, to enable a start in the right direction to be made.

In places of considerable extent the first thought should be, what is the suggested influence of the natural scenery? And that satisfactorily answered, all the planting and nurture bestowed upon the grounds should be to complete and carry out the hints nature seems to have given.

In doing this, formality must be avoided, and an appearance as much as possible like that of the natural landscape sought to be obtained. The house should be connected with the scenery by evergreens mixed with deciduous trees surrounding it, broken by lawn and stretch of undulating pasture; but so far as the eye may reach, portions of the same foliage should here and there appear mingled with the natural growth, so as to fully mark the proper blending.

In a widely ranging prospect, how small soever the land belonging to an owner may be, he can draw attention from its boundaries, and carry the eye from his own into his neighbor's domains, by skillful adaption of the features upon his own place with the forms beyond. To do this the stiffness of the inclosing fences,

as represented by the boundary lines on a surveyor's map, should never be reproduced. In plan they must exist of course, but their form and direction may be concealed by proper planting, and the eye of the spectator be carried beyond them unobservant of their existence.

The selection of the trees that are intended to form the boundary-line, must be ruled by natural laws; they must be suitable to the soil, and planted in masses of kinds that are congenial to each other, so that they may seem as if placed by the hand of nature in the position they occupy. These should be, not in regular clumps at stated intervals, with a fence appearing between, but should be diversified in number and extent of each group, and interspersed with evergreens, some of which may be continued between each clump, and thus preserve the lines of the boundary.

Trees varying in character, and as one may call them, antagonistic almost to the rest, may here and there be placed as if accidentally finding footing, and in each group the order of arrangement should be changed as much as possible, so as to obtain every contrast of color and foliage, both amid the group and in the general effect.

The efforts of a landscape-gardener should be directed to the attainment of simplicity and breadth of effect,—always pleasing, and moreover if properly understood, the most easily produced. The spider-web intricacies of gravel-walks and little flower-beds, once the fashion, are entirely out of place amid natural scenary so

grandly featured as the landscape of America, and even in a little suburban garden-plot are neither referable to the laws of propriety or common sense.

There are a few simple precepts derived from the experience and practical observation of successful land-scape-gardners, relating to paths, which I quote from "Papworth's Ornamental Gardening."

- "Paths should not be seen to cross the lawn before the windows of the apartments.
- "They should not be viewed from the windows along their course.
- "They should not seem to divide portions of lawn or shrubbery, into equal parts.
- "They should not be quickly sinuous without sufficient cause, and in all cases connected curves should be unlike each other in extent and compass.
- "The whole of two or more curves should not be visible at the same view.
- "They should be well drained, and particularly where he ground is sloping.
- "They should not ascend rising ground abruptly, but nclinedly.
- "Walks should always have an outlet, and occasionally diverge into ramifications, so that visitors shall not be obliged to return by the path they went, or to join society when they would choose to be private."

Small gardens about a cottage or suburban villa embarrass a gardener, on account of the contracted space permitted for arrangement of flower-beds or shrubberies. An effective and tasteful disposition may be made of the space by filling up the far corners with larger shrubs or climbing plants, so that the boundary-wall may be concealed, or its regularity broken, and by forming a walk rounding in front of these, and within it a grass-plot with flower-beds, protected and kept intact by wire-boarders of simple design. Where an outhouse is placed in such a yard, its best position will be in one of the corners, and a leafy screen may readily be contrived to conceal it, and also its approach.

In disposing the plants, those that grow to the greatest height should be placed in the rear, and a proper harmony of coloring preserved. The colors that are said by a painter to be in perfect harmony are red and green;—blue with orange;—yellow with purple;—white having the power of increasing the relative lustre of colors by intermixture therewith. Green affords repose to the eye, and is a background for all hues but blue; although the latter, if relieved by white, between it and the green mass, is equally distinct. Nature has, therefore, made green the mantle of the earth, with which all colors agree, and blue is the tint of the sky, never seen on or upon the green but with intervening white or separating tint between.

Around a cottage and its near inclosing fence, the trumpet vine, and the varieties of the clematis, the beautiful westeria, and the honeysuckle may be trained. Sweet smelling dwarf flowers in beds upon the little lawn; and in the rear, as a background, shrubs, such as

the Daphne, the Deutzia Scabra, the Pyrus Japonica, the Persian Syringa, and some of the hardy kinds of shrub-like roses that our horticulturists now afford, mingled with evergreens or not, as the extent of the space will permit.

Architectural embellishments, such as vases, pedestals, and the like, increase the apparent size of a garden, but should be used sparingly. In a small yard, the rear wall may be built in piers with spaces between; each pier surmounted by an urn or other such embellishment, and in front a border for climbing plants, trained upon trellis-work upon the face of the wall.

General directions cannot, however, serve particular cases, and the reader is referred to the many works that have been written on such matters, or to a skillful gardener, for further assistance. In building a country dwelling, however small may be the site, the architect should be asked for a plan for the disposition of its grounds, and house and garden be made to harmonize.

THE END.

GERVASE WHEELER,

ARCHITECT,

NASSAU BANK BUILDING,

Corner of Nassau and Beekman Streets,

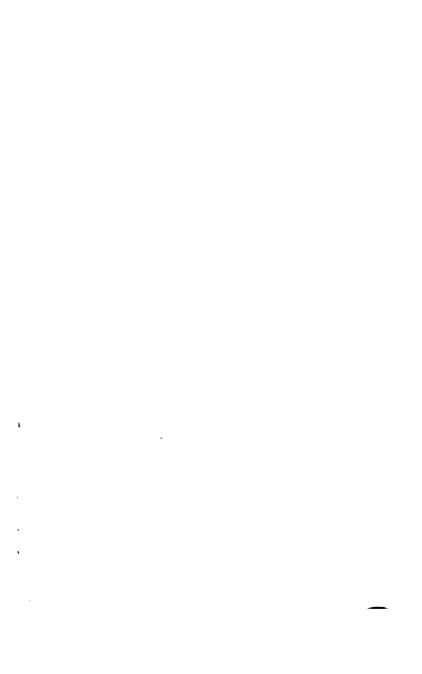
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